MEDICAL COLLEGE OF GEORGIA

TODAY

Volume 32, Number 2

Fall 2004

Time on Our Side

TRANSPORTER TECHNOLOGY POINTS TO A LONGER AND BETTER LIFE.

Breakthrough in Diabetes

A NEWLY DISCOVERED GENE PLAYS A MAJOR ROLE IN THE IMMUNE RESPONSE.

For the Record

A FEDERAL PLAN BROADENS THE SCOPE OF HEALTH INFORMATION ADMINISTRATORS.

From the Presidents

What happens when the best minds in medicine are at the same place at the same time?

We invite you to visit the Medical College of Georgia campus to find out.

MCG has always boasted some of the greatest minds in health care, but never before have we had such a critical mass of second-to-none researchers, educators and clinicians. Faculty recruitment has been a top priority in the past few years, and the cumulative results are simply transforming this campus.

With our efforts bolstered by private donations and statewide initiatives such as the Georgia Research Alliance, we are amassing a brain trust that rivals that of any academic medical center in the country—a major component in our steady progress toward becoming a premier health sciences university. In her recent State of the School Address, School of Dentistry Dean Connie Drisko said, "When I came to MCG, I was told that if we find the right people, MCG will help us get them here, and that has certainly been true." There could be no greater testament to our efforts.

You'll meet several of our recent recruits in this edition of *MCG Today*, including Dr. Guy Reed, chief of the Section of Cardiovascular Medicine.

Also, you may recall that a survey was included in the summer edition of *MCG Today* gauging how well the magazine meets your needs. Results are still pouring in, but so far, the feedback is encouraging. Overall, you seem to think we're on the right track, and your insights and suggestions are helping us optimize the magazine's potential as a vital medium for communicating MCG's many achievements.

Please keep the feedback coming. We truly welcome and value your opinion.

Sincerely,

Daniel W. Rahn M.D.

Daniel W. Rahn, M.D.
President, Medical College of Georgia

We are excited about the start of a new fiscal year and the prospect of making additional contributions to medical science. The past year has been chock full of significant clinical accomplishments: the initiation of a bloodless medicine program, the opening of a new inpatient otolaryngology unit, the adoption of numerous new medical devices such as the Amplatzer Septal Occluder and drug-eluting stents and the opening of a patient- and family-centered neurology intensive care unit.

In this issue of *MCG Today*, you'll read about even more new programs such as the CustomCornea system on page 4 and acupuncture on page 7.

Equally important have been the many ways in which we have been recognized. On page 5, you'll read about how we are serving as a model for the safe handling of hazardous materials. I am pleased to announce that we were named to the *U.S. News & World Report's* annual list of "America's Best Hospitals" in 2004. We were ranked 48 out of the top-50 hospitals in diagnosing and treating hormonal disorders such as diabetes and thyroid conditions.

We will continue our fine tradition as the area's quality leader, and will expand and improve our patient- and family-centered care. We have the best physicians, the most state-of-the-art technology, the most compassionate nursing staff and the most progressive patient-care programs. We are also good stewards in our community.

We are very proud of our achievements and invite you to join us in celebrating them.

Sincerely,

Don Snell

Don Snell
President and Chief Executive Officer
MCG Health, Inc.

MEDICAL COLLEGE OF GEORGIA

TODAY

Volume 32, Number 2 Fall 2004

CONTENTS

2 NEWSBRIEFS

10 PRECISION WORK
Otolaryngologist pioneers a method to treat parotid tumors.

17 HIS BROTHER'S KEEPER
A childhood tragedy plants the seed to unravel medical mysteries.

19 FOUND IN TRANSLATION
Expertise helps a neurologist become prolific in research-speak.

20 PRESSING FORWARD
A nurse's brush with mortality shapes her approach to health care.

22 FOR THE RECORD
A federal plan broadens the scope of health information administrators.

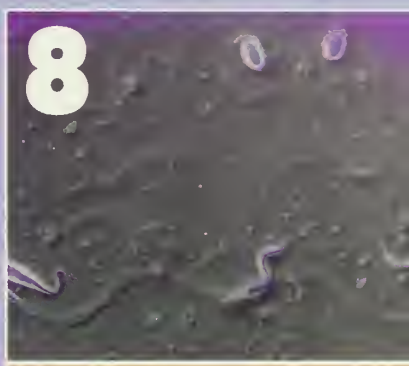
25 PROFILE IN GIVING
A nursing alumna and Milton Antony Guild founding member reflects on the importance of her MCG education.

26 PLAN YOUR GIVING
Health and education rank high in charitable giving.

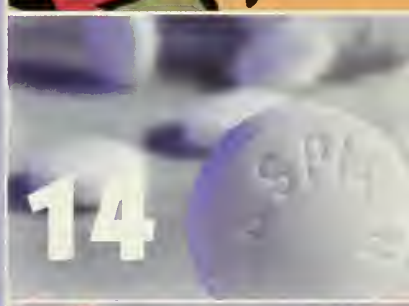
27 SCHOOL NEWS
School-by-school news for and about MCG alumni.

45 REFLECTIONS
Waiting for the smoke to clear.

Time on Our Side
Transporter technology points to a longer and better life.



BREAKTHROUGH IN DIABETES
A newly discovered gene plays a major role in the immune response.



THE HEART OF THE MATTER
Cardiovascular scientist targets potentially deadly clots.

MASTERING THE MAZE
The Office of Clinical Investigative Services clears the path for clinical studies.

WWW.MCG.EDU

MCG PRESIDENT: *Daniel W. Rahn, M.D.*
VICE PRESIDENT FOR EXTERNAL AFFAIRS: *R. Bryan Ginn Jr.*
DIRECTOR, STRATEGIC COMMUNICATIONS: *Caryl Cain Brown*
EDITOR *Christine Hurley Deriso*

ART DIRECTOR: *Pamela J. Hayes*
PHOTOGRAPHER: *Phil Jones*
WRITERS: *Toni Baker, Christine Hurley Deriso, Ellen Gladden, Deborah Humphrey and Danielle Wong*

MCG Today is produced quarterly by MCG Division of External Affairs with financial and editorial support provided by MCG Health, Inc. Division of Strategic Support. MCG's Division of Visual and Instructional Design provides creative services.

©2004

The Medical College of Georgia is the health sciences university of the University System of Georgia

NEWS BRIEFS

Best Doctors

Of the Augusta-area physicians named to the list of "Best Doctors® in America" for 2003-04, nearly half are Medical College of Georgia physicians. Each year, Best Doctors, Inc. of Boston surveys leading medical specialists and asks them what doctors they would go to for treatment in their specialty. More than 1 million individual evaluations of doctors by other doctors are processed.

The MCG physicians on the list are:

Allergy and Immunology
Dr. William K. Dolen
Dr. Dennis R. Ownby
Dr. Betty B. Wray

Anesthesiology
Dr. Eugene K. Betts

Dermatology
Dr. Jack L. Lesher Jr.

Family Medicine
Dr. Paul D. Forney
Dr. Julia Ellen Hendrich

Infectious Disease
Dr. John F. Fisher
Dr. J. Peter Rissing

Internal Medicine (General)
Dr. Laura L. Mulloy

Nephrology
Dr. Laura L. Mulloy
Dr. Steven J. Schwab

Neurology
Dr. Robert J. Adams
Dr. David C. Hess
Dr. Michael H. Rivner
Dr. Kapil D. Sethi

Neurology (Child)
Dr. James R. Carroll

Obstetrics and Gynecology
Dr. Lawrence D. Devoe
Dr. Lawrence C. Layman
Dr. Michael Scott Macfee
Dr. Robert David Stager
Dr. O. Eduardo Talledo
Dr. Barry Miles Wolk

Ophthalmology
Dr. David D. Bogorad
Dr. Stephanie L. Goei
Dr. Parag A. Gokhale
Dr. Julian J. Nussbaum

Orthopaedic Surgery
Dr. Styles Leslie Bertrand
Dr. Walton W. Curl

Otolaryngology
Dr. Mitchell Byrne Austin
Dr. David Terris

Pediatric (Specialists)
Dr. Jatinder Bhatia
Dr. Margaret F. Guill
Dr. Rita S. Jerath
Dr. William P. Kanto Jr.
Dr. William Lutin
Dr. Andrew B. Muir
Dr. Dennis Murray
Dr. Roger A. Vega
Dr. Henry B. Wiles

Pediatric (General)
Dr. Davidson L. Freeman

Plastic Surgery
Dr. Kenna S. Given
Dr. Jack C. Yu

Psychiatry
Dr. Peter F. Buckley
Dr. Jeffrey L. Rausch

Pulmonary and Critical Care Medicine
Dr. W. Bruce Davis

Radiation Oncology
Dr. Arlie Eugene Fiveash Jr.

Surgery
Dr. Thomas R. Gadacz
Dr. Robyn Maurice Hatley
Dr. Charles G. Howell Jr.
Dr. Robert Martindale
Dr. Joseph Sheppard Mondy III
Dr. James J. Wynns

Urology
Dr. Ronald W. Lewis
Dr. Jonathan S. Vordermark II

Top Doctors

Thirteen Medical College of Georgia physicians have been selected for inclusion in *America's Top Doctors,* a national patient reference guide published by Castle Connolly Medical Ltd.

The book, which identifies the top 1 percent of physicians in the nation, helps patients find the top specialists in any given medical field. The 13 MCG physicians, most of whom have been on this list for the past three years and all of whom have been on this list for the past two years, are:

Allergy and Immunology (Pediatric)
Dr. Dennis R. Ownby

General Surgery
Dr. Thomas R. Gadacz
Dr. Bruce MacFadyen

Hematology
Dr. C. Lawrence Lutcher

Medicine
Dr. Steve J. Schwab

Neurology
Dr. Robert J. Adams
Dr. David C. Hess
Dr. Kapil Sethi

Oncology
Dr. Russell Moores

Ophthalmology
Dr. Julian Nussbaum

Orthopaedics
Dr. Walton W. Curl

Rheumatology
Dr. Daniel W. Rahn

Urology
Dr. Ronald W. Lewis

Center of Excellence

The MCG Movement Disorders Program, a component of the MCG Neuroscience Center, has again been designated a National Parkinson Foundation Center of Excellence.

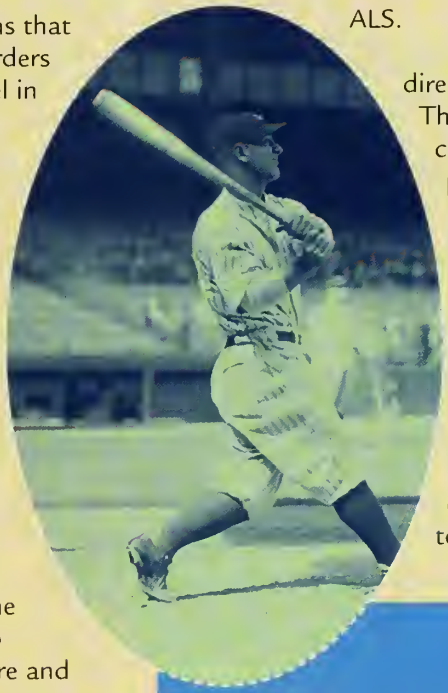
The redesignation means that the MCG Movement Disorders Program continues to excel in research on Parkinson's disease and related neurological disorders, comprehensive care, patient/family support, education and outreach. The MCG Movement Disorders Program is one of only 42 U.S. programs to earn the National Parkinson Foundation designation.

The program has also received two grants through the National Parkinson Foundation. One grant will help continue to provide comprehensive care and further develop the multidisciplinary aspects of the Movement Disorders Clinic. The other grant will further outreach and community education, including developing community networks to help educate those in rural and underserved areas about Parkinson's disease.

ALS Clinic

The MCG Neuroscience Center has opened a clinic for patients with Amyotrophic Lateral Sclerosis, commonly known as Lou Gehrig's disease, held the second Thursday of every month.

ALS is a fatal, degenerative disease of the nervous system that can strike adults at any time. The disease affects the neurons that control muscle movement. Over time, patients lose the ability to move their limbs, speak, swallow or even breathe, while maintaining complete awareness and brain function. There is currently no effective treatment or cure for ALS.



"This is a tragic disease," says Dr. Michael Rivner, director of the ALS Clinic. "Even as groups such as The ALS Association of Georgia look for a cure, clinics such as ours offer supportive care to patients and families. Our most important goal is to make patients comfortable and provide tools to ensure they stay as healthy as possible, both mentally and physically."

The clinic provides one-stop service, including diagnosis, physical and speech therapy, nutrition and social work services. The ALS Association of Georgia also works closely with the clinic, providing nursing representatives and other support staff, home visits and an equipment loan program that includes computers to assist in communication.

Lab Renovations

The University System of Georgia Board of Regents recently approved more than $2.7 million in renovations to some laboratories in the Carl T. Sanders Research and Education Building.

The project will include improvements to about 12,450 square feet used by the Department of Cellular Biology and Anatomy. The renovation will upgrade the mechanical, electrical and telecommunications systems, and will provide modern laboratory spaces, offices and support areas.

New Web Programs

Two new Web-based programs make it easier than ever to earn Medical College of Georgia degrees in nursing and health information administration.

The programs, approved by the University System of Georgia Board of Regents in August, will lead to a bachelor's degree in nursing for registered nurses and a bachelor's degree or post-baccalaureate certificate in health information administration.

The nursing curriculum includes eight courses that can be completed in two semesters for full-time students or up to eight semesters for part-time students. The courses include some clinical and laboratory work, but most coursework can be completed via the Internet, minimizing disruption to registered nurses' current careers and/or family obligations.

MCG anticipates enrolling 18 to 20 students a year in the Web-based health information administration course through its School of Allied Health Sciences Department of Health Informatics. Graduates will be eligible to take the national credentialing examination to become a registered health information administrator. The professionals manage personal health information and other vital health care information in hospitals, clinics, private industry and other settings.

See related story, page 22

VENT Cell Research Progressing

As the debate continues on the ethics and therapeutic potential of embryonic versus mature stem cells, MCG researchers are exploring a third group of cells that appears critical to development and capable of making all major types of human tissue.

"VENT cells are a unique category of multi-potent cells," Dr. Douglas P. Dickinson, molecular biologist, says of this cell type that escapes from the bottom of the neural tube early in development, after the tube closes to form the brain.

VENT cells then travel along nerve paths, eventually getting ahead of the nerves, and dispersing throughout the body. MCG Developmental Biologist Paul Sohal first identified the cells in 1995. Dr. Dickinson hopes to use the cells to study the development and function of salivary glands and was the lead author of a review article in the August edition of *Journal of Anatomy* examining the history of VENT cell research.

The article chronicles the cells' discovery and documentation of their presence in every tissue that Dr. Sohal's research team has examined, including the gastrointestinal tract, heart, liver, blood vessels, inner ear and skull. "If you interfere with VENT cells arriving at target tissues, you appear to cause major disruptions in development," Dr. Dickinson said.

Now Dr. Dickinson is part of the team answering additional questions such as the origin of VENT cells, the exact role they play in target tissues and whether they are the source of undifferentiated adult stem cells kept in reserve by all tissues.

Custom Corneas

New technology that works with existing LASIK technology to customize eye correction recently debuted at MCG Health System.

The CustomCornea system captures the wavefront error of the eye's optical system and customizes a map of the eye that refractive surgeons use to reshape the cornea during LASIK. "The result is the most advanced vision-correction surgery available today," says Dr. David Bogorad, director of the MCG Refractive Surgery Service.

LASIK initially could correct only nearsightedness, farsightedness and astigmatism. However, these distortions, known as lower-order aberrations, account for only 85 percent to 95 percent of vision quality. The remaining 5 percent to 15 percent of distortions, known as higher-order aberrations, affect vision clarity and night or low-light vision. CustomCornea enables the laser to correct these higher-order aberrations along with lower-order aberrations.

Dr. David Bogorad

"In conjunction with our LADARVision system, which records the position of the eye 4,000 times per second and allows the most precise and accurate placement of the laser beam, CustomCornea takes our Laser Vision Correction Service to the next level," says Dr. Bogorad. "It has the potential to offer a better quality of vision, which can improve a person's overall quality of life."

Second Coronary Stent

Interventional cardiologists at MCG Health System have a new tool to help treat coronary artery disease.

Boston Scientific Corp.'s TAXUS Express Paclitaxel-Eluting Coronary Stent System was FDA-approved and joins Cordis Corp.'s CYPHER Sirolimus-Eluting Coronary Stent as the second drug-eluting stent approved to treat coronary artery disease. "This important technology is another tool in our arsenal and will advance our angioplasty and stenting procedures," says Dr. Deepak Kapoor, interventional cardiologist.

Coronary artery disease affects approximately 11 million Americans and is the single leading killer of Americans, causing approximately 500,000 deaths per year. The disease occurs when cholesterol, fats, calcium and other elements from the blood build up in the inner walls of the coronary arteries, which supply oxygen to the heart. This buildup, also called plaque, restricts blood flow through the arteries and can lead to chest pain or heart attack.

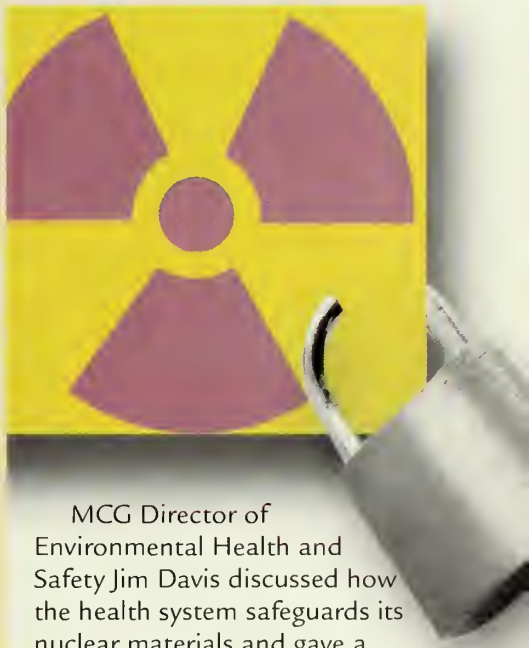
Preventive treatment for coronary artery disease can include balloon angioplasty and stenting. In the cardiac catheterization lab, an interventional cardiologist inserts a catheter through an incision in the groin or arm and into the blocked artery. The catheter delivers a balloon, which is used to break up the blockage. Then a stainless steel stent—a tube of wire mesh—is deployed into the artery to keep it open. Relief of chest pain following this procedure would be immediate.

The new drug-eluting stents are coated with medication to help decrease the likelihood that blockages will return. Thirty percent of blockages return with the use of bare metal stents. The new drug-eluting stents reduce this incidence to 5 percent, says Dr. Kapoor.

The TAXUS Express stent is coated with paclitaxel, the active ingredient in the breast and ovarian cancer drug, Taxol. The CYPHER stent is coated with sirolimus, an anti-rejection medication originally used in kidney transplant patients.

A Model for Safety

When the U.S. Department of Energy recently announced a global initiative to secure high-risk nuclear and radiological materials, MCG Health System was identified as a model for safe handling, security and storage.



MCG Director of Environmental Health and Safety Jim Davis discussed how the health system safeguards its nuclear materials and gave a tour of the facilities to representatives of the Savannah River Site and Department of Energy headquarters.

"We are going to assist other countries in securing nuclear materials," says Chuck Goergen, international programs manager in nuclear nonproliferation programs for Westinghouse Savannah River Co. at SRS. "We looked at how MCG Health System secures and safeguards its nuclear materials as a model to help us address any gaps in current security coverage in other countries."

Memory-Enhancing Drug

Dr. Jeffrey Rausch

A new drug that appears to improve learning and memory in animals and may reduce the accumulation of destructive plaque that is the hallmark of Alzheimer's disease is under study at the Medical College of Georgia.

MCG is enrolling Alzheimer's patients with mild to moderate memory loss in a 12-week study that compares different doses of the drug, still known only by a number, to a placebo. The study is being conducted at approximately 40 sites worldwide, including 34 sites in the United States.

"We want to see if this drug will improve cognition or memory in Alzheimer's disease," said Dr. Jeffrey L. Rausch, psychiatrist, vice chair of the MCG Department of Psychiatry and Health Behavior and a principal investigator on the study.

The drug, developed by Sanofi-Synthelabo, Inc., in France, has been shown to improve episodic memory and reverse learning decline in aging rats, Dr. Rausch said. Previous clinical trials have suggested the drug is safe in humans; the current study will look at its efficacy and safety.

The drug is among the first to target 5HT4 receptors, which help regulate the neurotransmitter, serotonin. "Stimulation of the 5HT4 receptors appears to be neuroprotective and memory-enhancing in animals," Dr. Rausch says.

Running Smoothly

Runners of all ages and experience levels can benefit from the area's only specialized running clinic, offered by the MCG Sports Medicine Center on Fridays from 9 a.m. to noon.

The clinic offers medical and physical assessments for runners, by runners. "As runners themselves, the sports medicine physicians and physical therapists at the MCG Sports Medicine Center bring their personal experience as well as their professional expertise in helping runners of all ages reach their potential and remain injury-free," says Dr. Joel Brenner, a sports medicine physician at the center.

Most running injuries result from training errors, overuse or poor biomechanics. Through the clinic, runners benefit from:

- A complete 60-minute evaluation by a sports medicine physician and therapist
- The area's only pediatric and adolescent sports medicine specialist
- Review of running program and comprehensive history of injury
- Muscle assessment including flexibility and strength-testing
- Biomechanical assessment of hips, knees, ankles and feet
- Individualized running shoe prescription
- Customized running-specific exercise prescription
- Custom orthotics to correct biomechanical problems
- Video gait analysis to optimize running form

"Our sports medicine team has years of experience with thousands of runners of all skill levels. The specialized needs of runners necessitate expert advice to help prevent injury, hasten recovery and enhance performance."

– Dr. Joel Brenner

SRS Partnership

The Medical College of Georgia and the Savannah River National Laboratory have joined forces in research collaboration.

Administrators from the CSRA's two premier research institutions signed an agreement in August to foster collaboration among life scientists and engineers. The organizations will explore technological issues of importance to MCG and the Savannah River Site, pursue funding opportunities that benefit both organizations and develop joint research proposals.

"It's really an exciting partnership. Recent technical exchanges have shown that MCG and SRS have common needs and interests in technologies that entail both life sciences and engineering aspects. This agreement seeks to make it easier to submit joint proposals and to increase the likelihood of them being funded."

–Dr. Michael Gabridge
MCG associate vice president for technology transfer and economic development

Acupuncture Alternative

"My husband seems to forget that he's not 18 years old anymore," says Dr. Ines Berger, interim director of pain management at MCG Health System. "He tends to overdo things and then his shoulders and lower back hurt. Many times, I have fixed that for him with a few simple acupuncture needles."

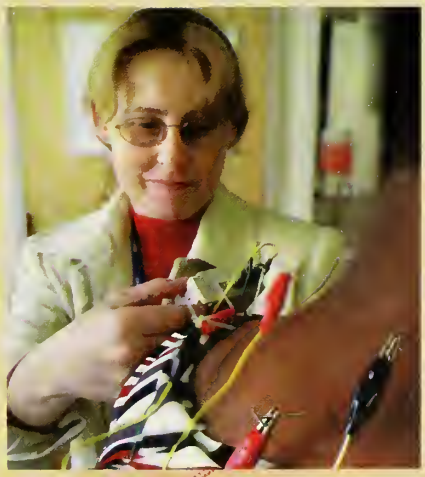
Acupuncture, a traditional Chinese therapy using needles to restore balance and harmony, is one of many tools that Dr. Berger incorporates into her practice. She uses the technique to treat musculoskeletal pain such as trigger points, fibromalgia and sports injuries; cancer-related nausea, vomiting and anxiety; and chronic headaches, among other maladies.

"I work primarily with patients who suffer from chronic pain," she says. "Most of our patients have tried many different pills and injections. Many of the treatments have significant side effects, like infection, risk of intestinal bleeding or loss of bone mass. I am fascinated by a technique that is virtually side-effect free and has been around more than 2,000 years."

Acupuncture is particularly suitable for elderly patients, very ill patients and athletes, whose medication choices may be limited due to side effects or circumstances.

"Acupuncture is very relaxing to most patients, unless they are really afraid of needles," Dr. Berger says.

Her techniques include Craig PENS (Percutaneous Electrical Nerve Stimulation), placing electrically stimulated needles near nerves that generate pain signals; auricular acupuncture, stimulating one or more acupuncture points on the outer ear representing various parts of the anatomy; and neuroanatomical acupuncture, using anatomical structures such as nerves and muscle to guide needle placement.



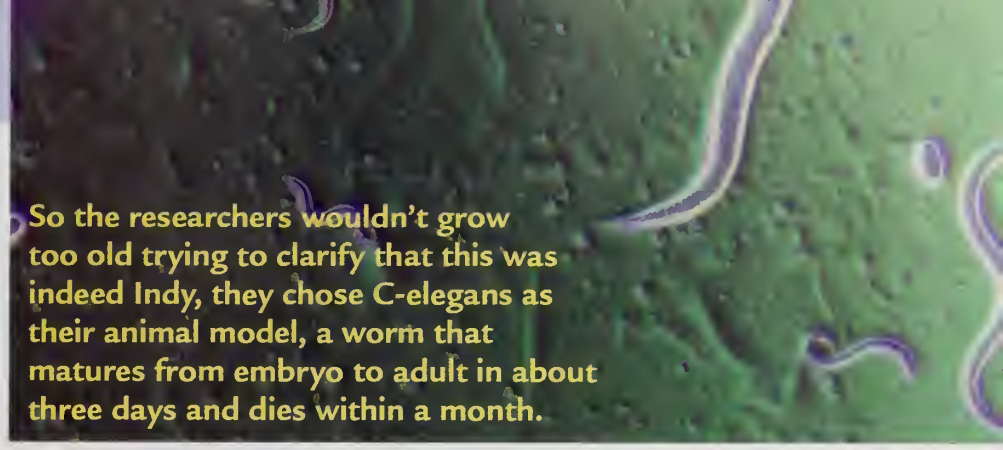
Dr. Ines Berger

Time on Our Side

Transporter Technology Points to Longer, Better Life

IMAGINE THAT BY ALTERING THE FUNCTION OF A SINGLE GENE, YOU COULD LIVE LONGER, BE THINNER AND HAVE LOWER CHOLESTEROL AND FAT LEVELS IN YOUR BLOOD. MEDICAL COLLEGE OF GEORGIA RESEARCHERS ARE USING A TINY WORM CALLED C. ELEGANS TO TRANSFORM THAT VISION INTO REALITY.

"Our Indy gene is only one of the life-determinant genes. But I can say that when the function of this single gene is knocked down, the animal can extend its lifespan." –Dr. You-Jun Fei



So the researchers wouldn't grow too old trying to clarify that this was indeed Indy, they chose C-elegans as their animal model, a worm that matures from embryo to adult in about three days and dies within a month.

Researchers You-Jun Fei and Vadivel Ganapathy have found that the Indy gene is critical in providing cells with energy, producing a transporter that helps deliver key ingredients of the fuel that drives cells. Indy delivers metabolic substrates such as citrate and succinate to cells where they enter the powerhouse called the mitochondria. Inside the powerhouse, oxygen also is critical to the biochemical reaction that occurs to produce ATP, the fuel for cells, says Dr. Fei, molecular biologist.

An unfortunate byproduct of this oxygen metabolism is reactive oxygen species, a sort of cellular trash that ages cells and may contribute to diseases such as Parkinson's and Alzheimer's. "This is why people think we age: these byproducts of oxygen metabolism cause cells to degenerate," says Dr. Ganapathy, biochemist and chair of the MCG Department of Biochemistry and Molecular Biology.

That also is why decreased activity of the Indy transporter seems to make animal models live longer, healthier lives. The MCG researchers have identified this longevity gene in humans, mice, rats and zebrafish as well as C. elegans.

The researchers have a $605,000, three-year grant from the National Institutes of Health's Institute on Aging to determine the activity level that optimizes longevity and find compounds to control that level.

"The human lifespan is a phenotype determined by multiple genes," says Dr. Fei, principal investigator on the grant. "Our Indy gene is only one of the life-determinant genes. But I can say that when the function of this single gene is knocked down, the animal can extend its lifespan."

University of Connecticut researchers were the first to recognize the relationship between Indy—short for 'I'm not dead yet'—and longevity when they found spontaneous mutations of the gene in the adult fruit fly that nearly doubled its lifespan. Their research, published in *Science* in December 2000, shows the mutations may create a metabolic state that mimics caloric restriction, which has been shown to extend lifespan. They were uncertain of the gene's function but suspected it was a transporter.

"When you look at the protein coded by this gene, you can guess what the gene does because transporters have certain structural features. The protein made by this gene has the same kind of structural features of the transport system," Dr. Ganapathy says. The structure looked a lot like two dicarboxylate transporters Drs. Fei and Ganapathy had been studying for years. They cloned the Indy gene from the fruit fly but found it didn't quite match either transporter. "We knew there had to be something else," says Dr. Ganapathy.

That something else turned out to be a third transporter of dicarboxylates and tricarboxylates, which include citrate, succinate and other components of the citric acid cycle, the primary pathway for energy production in cells. "Now, there are three transporters with a similar function. How do we prove that the third one is actually Indy? We need an animal model that enables us to study the effect on lifespan," he says.

So the researchers wouldn't grow too old trying to clarify that this was indeed Indy, they chose C. elegans as their animal model, a worm that matures from embryo to adult in about three days and dies within a month.

Dr. Fei cloned all three of the acid transporters in the C. elegans, decreased the activity of each and found that the newest transporter, Indy, increased the lifespan of the worm and decreased body size and fat content without apparent ill effects. They published their initial cloning work in the *Journal of Biochemistry* in 2003 and the work on Indy's biological function in *Biochemical Journal* this year.

They were able to mimic the spontaneous genetic mutation Connecticut researchers found in the fruit fly by feeding specially engineered bacteria to C. elegans that decrease the activity of Indy. The result? A 15 percent to 20 percent increase in lifespan, in addition to the other benefits.

Unlike true genetic knockouts, with scientists removing both copies of a gene to eliminate 100 percent of its function or taking out one copy so the gene functions at half capacity, the MCG scientists cannot determine the exact gene activity level in their animal model. "These worms reflect what happens with reduced activity in the transporter," Dr. Ganapathy says. "But we don't yet have a stable mutant line. That is one of the aims for the NIH grant."

Oddly, the maximum benefit, at least in the fruit fly, doesn't come from zero activity. Instead, flies live the longest with about half the normal gene activity. Dr. Fei wants to find the optimal degree of activity. He and Dr. Ganapathy

already are working on a mouse with half the normal Indy activity so they can look at the impact on longevity in animals with a two-year lifespan.

To confirm that the gene functions similarly in worms and humans, they also plan to take the Indy gene out of the C. elegans and replace it with the human gene to see if that reverses the effect. "We call it humanizing the worm," Dr. Ganapathy says.

He noted an interesting difference between worm and human genes: the human Indy gene is more adept at transporting tricarboxylates or citrates, a primary precursor for fat and cholesterol. "If you find a drug that can block the function of this transporter, it might interfere with the use of citrate for fat and cholesterol synthesis, which should help people lose weight and reduce their cholesterol," Dr. Ganapathy says.

Drs. Fei and Ganapathy also are working to identify compounds that can control gene activity. They may have to look no further than store shelves to find a good starting point: hydroxycitrate, an analogue of citrate found in the skin of the Indian fruit garcinia, already is being touted for its weight-loss and cholesterol-reducing properties. "We think the mechanism for how this compound works is at least partly by manipulating this transport system," Dr. Ganapathy says, adding that studies of hydroxycitrate might point toward more specific, potent compounds. The potential benefit derived from manipulating the activity of Indy has prompted the MCG Office of Technology Transfer and Economic Development to seek national and international patents on the transporter technology.

–Toni Baker

Drs. Vadivel Ganapathy (left) and You-Jun Fei

Precision Work

MCG otolaryngologist pioneers method to treat parotid tumors

It grew so slowly that months passed before it caught his attention.

But by the summer of 2003, the tumor in J.W. Little's parotid gland was the size of an egg. The parotid gland, the largest of the salivary glands, lies in front of the ear, so the tumor eventually became impossible to ignore. Sore to the touch, it began to bother Mr. Little when eating or sleeping on his side. "At first, I didn't pay it any mind," he says. "But when it got bigger, my wife, Deborah, and I decided we needed to have it checked out."

Mr. Little was referred to Dr. Christine Gourin of the Department of Otolaryngology at MCG Health System. After an inconclusive needle biopsy and magnetic resonance imaging, Dr. Gourin recommended removing the gland.

J.W. Little

"Most lumps of the parotid gland are benign, but the danger is that they can undergo malignant transformation," says Dr. Gourin. Cancers of the parotid gland are rare, encompassing only about 3 percent to 5 percent of all head and neck cancers. But the effects can be devastating; the facial

nerve runs through the gland, so a malignant tumor can cause permanent facial paralysis or weakness.

Parotid cancers grow slowly, with the only symptoms being a firm and persistent swelling in front of the ear along the jawline. and minor pain. The origin of parotid cancer is unknown, although radiation exposure may be a contributing factor. Needle biopsies can confirm that a tumor is cancerous, but not that it is benign, so experts generally recommend removing any parotid tumor.

Mr. Little's condition was unfortunate but his timing fortuitous. Dr. Gourin recently pioneered a method to treat these types of cancers to help reduce the risk of facial paralysis as well as reduce bleeding and operative time. She is the first in Georgia to use the harmonic scalpel to remove tumors of the parotid gland.

"It's a tricky procedure," says Dr. Gourin, who has co-authored a study on the effectiveness of the scalpel. "Nerve damage [causing] facial paralysis is a risk of surgery. But we've found that the harmonic scalpel is just as safe as conventional, cold-knife methods and results in less blood loss and greatly reduced operative time for the patient."

During parotid surgery, it is important for the surgeon to identify and dissect the facial nerve and its branches—a job well-suited to the harmonic scalpel. "Because less blood is lost, the facial nerve may be even easier to identify during surgery." Ultrasonic vibrations are produced by the expansion and contraction of piezoelectric crystals housed in the hand piece of the scalpel and transferred to the blade through blade extenders. The scalpel vibrates at an extremely high frequency and cuts tissue bonds at temperatures ranging from 60 to 80 degrees Celsius. It simultaneously cuts and coagulates, with low resulting thermal transduction and no electric current.

"The harmonic scalpel has been used for other head and neck procedures such as thyroidectomy [thyroid removal], but this is the first time it's been used to remove these types of cancers," says Dr. Gourin. "As a specialist in head and neck cancers, I'm very pleased to find a new application for this tool and look forward to seeing other applications developed for it in the treatment of cancer."

She used the harmonic scalpel to remove Mr. Little's parotid gland at MCG Health System in September 2003.

"The surgery went very well," says Dr. Gourin. "During our study, we'd found that use of the harmonic scalpel was associated with a significant reduction in length of surgery, from 195.5 minutes to 167.5 minutes, and greatly reduced blood loss, from 60 milliliters to 37.5 milliliters. Mr. Little's surgery was comparable to these findings."

His surgery and recovery took only three weeks, far less time than it took for the tumor to develop. The rapid recovery was a welcome surprise to Mr. Little and his wife. A diabetic, Mr. Little had a kidney transplant in 1988 and remembers the lengthy healing process all too well. While this surgery was less extensive, still, he says, "it was amazing to me that a diabetic could heal that quickly."

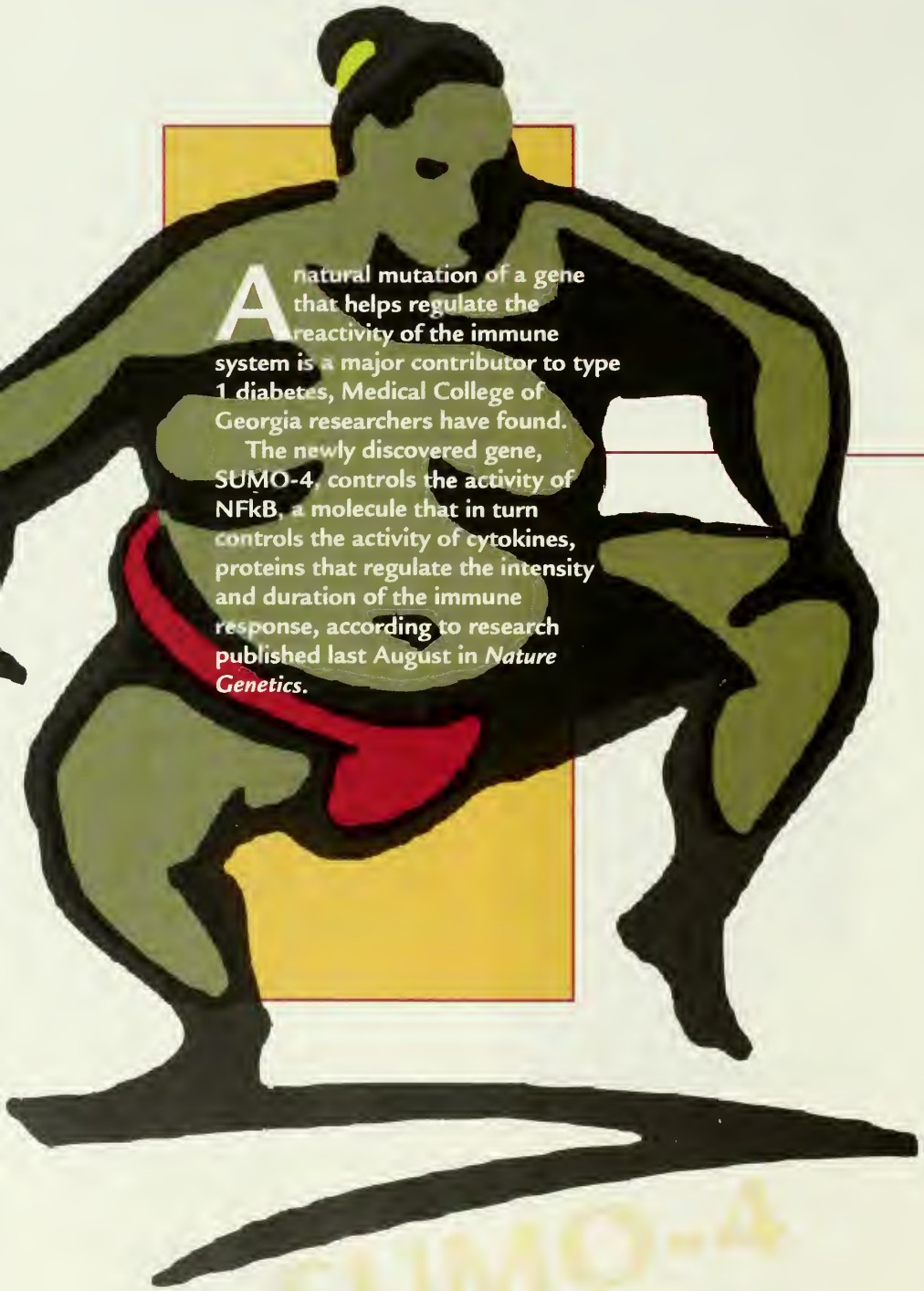
Today, Mr. Little, a former basketball and football coach at Lucy Laney High School, continues to enjoy his retirement, along with his wife, who was an MCG nurse for 10 years. He suffers no ill effects from the tumor and shows no sign of facial paralysis or weakness from removing the tumor, which was indeed determined cancerous after a subsequent examination. "I'm very happy," says Mr. Little of the procedure.

–Danielle Wong

WE'VE FOUND THAT THE HARMONIC SCALPEL IS JUST AS SAFE AS CONVENTIONAL, COLD-KNIFE METHODS AND RESULTS IN LESS BLOOD LOSS AND GREATLY REDUCED OPERATIVE TIME FOR THE PATIENT.
–Dr. Christine Gourin

Breakthrough in Diabetes

Newly Discovered Gene Plays Major Role in Immune Response



A natural mutation of a gene that helps regulate the reactivity of the immune system is a major contributor to type 1 diabetes, Medical College of Georgia researchers have found.

The newly discovered gene, SUMO-4, controls the activity of NFkB, a molecule that in turn controls the activity of cytokines, proteins that regulate the intensity and duration of the immune response, according to research published last August in *Nature Genetics*.

By examining the transmission of genes from parents to children in nearly 1,000 diabetic families worldwide, the researchers found that a certain natural mutation of that SUMO-4 gene increases the risk of type 1 diabetes.

"This helps us understand how type 1 diabetes works, and we can use this improved understanding to better predict who will get the disease and design new intervention strategies for those who do," says Dr. Jin-Xiong She, director of the MCG Center for Biotechnology and Genomic Medicine and a co-senior author on the study.

"The mutation we have found is going to increase the responsive capacity of the immune system to environmental triggers or stimulators; it makes it more reactive," says Dr. Cong-Yi Wang, molecular geneticist and co-senior author.

Dr. Wang and his research team found that when the mutation encounters an environmental trigger, such as a bacterial or viral

Drs. Jin-Xiong She (left) and Cong-Yi Wang

infection, an autoimmune response unfolds that eventually attacks the patient's own tissue.

They already are exploring the gene's potential role in other autoimmune diseases as well, such as lupus, thyroid disease, arthritis and multiple sclerosis.

SUMO-4 is the fourth gene identified that contributes to type 1 diabetes, taking a place just behind HLA, another regulator of immunity, in terms of relative risk.

"Many genes are involved in type 1 diabetes, but this is one of the most important ones," says Dr. She. He leads a research team that has followed diabetic families primarily in Florida and Georgia for the past 10 years to find precisely how genes, the immune system and the environment work together to cause type 1 diabetes, a disease that requires a lifetime of taking insulin. Like its lifestyle-related counterpart, type 2 diabetes, the incidence of type 1 has increased dramatically: a near 300 percent increase in the last 20 years.

This is one of the few times scientists have successfully used a systematic approach to finding a gene involved in a complex disease such as diabetes.

The MCG researchers narrowed their search for diabetes-related genes by looking at those most often transmitted to children with diabetes, says Dr. She, Georgia Research Alliance Eminent Scholar in Genomic Medicine. Rather than traditional forward genetics, a cumbersome process likened to looking for a needle in a haystack, this approach narrows the search by predicting which of some 40,000 genes might be involved in a disease based on what scientists already know about the disease and the genes.

"You guess the function, you guess the disease possibilities, then you guess which genes might be involved in the pathogenesis," Dr. She says. "As a community, we have guessed right a few times, including identification of HLA. But this is the first time we have used a systematic approach to find the gene and it's the first gene in which we know how it contributes to the disease."

For example, HLA is a regulator of immunity that has been known for 30 years, but researchers still don't know exactly how it causes diabetes. The MCG team has found that SUMO-4 encodes a protein that modifies the activity of NFkB. It was already known that NFkB regulates the production of certain cytokines and that cytokines have a role in type 1 diabetes as well as other autoimmune diseases. What wasn't known was the cause of the excessive cytokine production seen in those diseases. Now, they know that SUMO-4 regulates the activity of NFkB, which in turn regulates whether cytokine production is on autopilot, shut down or revved up. The SUMO-4 mutation they found overrides the systems that put cytokine production on autopilot or shut it down. Instead, it enables cytokine production not only to increase but directs the increased immune response at the insulin-producing beta cells of the pancreas.

Dr. She credits many for the findings but especially Dr. Wang for his diligence in working through this more systematic, but still extremely tedious, approach to identifying not only the gene but how it causes disease.

"This is the reason scientists stay in science," Dr. She says. "These are the days you look for, days when you can make a difference, not just for science, but for humanity." He noted that none of the work would be possible without the contributions of study families. "We are trying to improve their lives, but without them, we cannot do anything."

The studies were funded by National Institute of Child Health and Development and the Juvenile Diabetes Research Foundation. Collaborators included researchers at the University of Florida; Endocrinologia, Instituto Clinica Medica II, University of Rome; the University of Southern California School of Medicine, Los Angeles; Cedars-Sinai Medical Center and the University of California, Los Angeles; Hanyang University Hospital in Korea; Facultad de Medicina, Universidad Complutense in Madrid; HLA Laboratory, Beijing Red Cross Blood Center, China; and Unite de Recherches de 1'INSERM U580, Centre de l'Association Claude Bernard, France.

–Toni Baker

The Heart of the Matter

Cardiovascular Scientist Targets Potentially Deadly Clots

He likens it to a Greek tragedy: one's strength is one's downfall. Billions of platelets vigilantly cruise the body's extensive vascular network, looking for signs of injury, then swiftly assemble into a lifesaving clot to patch the problem, explains Dr. Guy Leland Reed.

It's a fabulous system if you are hit by a car or stabbed by an assailant. Yet that system causes some 95 percent of heart attacks and about the same percentage of strokes in this country, says the new chief of the Medical College of Georgia Section of Cardiovascular Medicine.

"I remember when I was an intern taking a 35-year-old (heart attack victim) to the coronary care unit," says the Georgia Research Alliance Eminent Scholar in Cardiovascular Disease. His heart stopped more than once on the trip and he had to be defibrillated in the hallway. He lived, but with enormous heart damage. "It completely altered his life," says the physician-scientist who is researching better ways to dissolve the clots that wreak such havoc.

Today's standard for destroying clots includes transfusing engineered enzymes called plasminogen activators. For those who reach a cardiac catheterization laboratory within two hours, a catheter is used to burrow through the blockage and make a new passageway for blood and oxygen that's shored up with a stent, a tiny tube that works like a concrete pipe inside a dirt tunnel. (See related story page 5.) "Catheterization has become the treatment of choice because it's proven to be more effective at more fully opening the artery in trials where they compared treatments," Dr. Reed says.

But he's banking on better ways still, medicines that will one day arrive at the house with paramedics responding to a heart attack or stroke in progress. Use of aspirin, a weak inhibitor of platelet adhesion, has supported the logical notion that earlier intervention is a good thing:

taking an aspirin soon after a heart attack can decrease mortality by 20 percent, studies have found.

Dr. Reed is looking at the body's natural mechanism for making and destroying clots to find better ways to further reduce those numbers.

The search has yielded design of monoclonal antibodies that prevent a natural clot-dissolving enzyme inhibitor called antiplasmin from being inactivated. Plasmin is the enzyme that cuts up clots. Deactivating its inhibitor makes it last longer. "This is a way of tweaking the body's control system so the enzyme can be more active."

A company in Boston is helping slightly modify the mouse monoclonal antibodies that "work like a charm and are extraordinarily specific" into human versions that can be tested in MCG patients.

Another critical part of the clotting process is the sticky protein secreted by the platelets' genes. Mice kept in captivity have a spontaneous mutation of the genes that make this protein; the mice simply don't make clots. That mutation is enabling Dr. Reed and his colleagues to screen for compounds that interfere with the action of molecules that produce the sticky stuff as well as better understand how platelets stick together.

The goal is finding better tools to dissolve a clot without potential side effects such as bleeding. "You want a clot to patch the wall, but you don't want it to get so big that it occludes the artery. What keeps it from getting so huge is this process of clot dissolution called fibrinolysis," he says of the body's natural mechanism for dissolving clots. "If you can turn on that enzyme or keep it from being inhibited, you can cause the body itself to

–CONTINUED

Use of aspirin, a weak inhibitor of platelet adhesion, has supported the logical notion that earlier intervention is a good thing:

TAKING AN ASPIRIN SOON AFTER A HEART ATTACK CAN DECREASE MORTALITY BY 20 PERCENT, STUDIES HAVE FOUND.

degrade the clot. If you can facilitate both the process of dissolution as well as a process that inhibits clot formation, you solve the problem."

He also is tackling the increasingly common result of surviving a heart attack: heart failure. "Heart failure is the most rapidly increasing discharge diagnosis in the country," says Dr. Reed.

A heart in failure is an oversized, boggy muscle that no longer beats adequately. "It leads to sodium and water retention, to fluid in the lungs, to not being able to breathe. That is the scary part," says Dr. Reed.

Studies in his Harvard laboratory of congenital heart defects serendipitously resulted in a transgenic mouse that is enabling his heart failure studies. Different strains of mice are like different races of humans, and the researchers have found that some strains have delayed onset of heart failure. He hopes this finding will shed light on how and why the heart takes the steps from damage to failure.

He recently saw living proof of differences in compensatory mechanisms while making rounds: two patients with significant heart damage, one bedridden and the other still working as a prison guard.

"What signal or defect leads to this loss of compensation that causes the mice's already-impaired hearts to swell up and no longer take care of the circulatory needs is a mystery," says Dr. Reed. His model may help solve the mystery by enabling researchers to better understand the failure of the natural compensatory mechanism and how to prevent it.

"We are trying to find genetic modifiers of heart failure," he explains. One player appears to be a protein on the surface of heart cells that was discovered by the National Institutes of Health's Human Genome Project. Researchers have since learned that the protein makes the natriuretic peptides that cause blood vessels to dilate and the body to eliminate sodium and water.

"We found paradoxically that natriuretic peptides were expressed at higher levels, but the enzyme that converts them was going down as mice developed heart failure. It should be going up." When mice received this gene plus the gene that causes heart failure, those with higher levels of the enzyme were more likely to survive.

Dr. Reed hopes the work will help the prison guard keep his job and the bedridden patient go back to his.

"We want to understand how heart failure progresses and whether these observations made in mice are applicable to humans," says Dr. Reed. "To go forward, we have to create new thoughts and understanding. For the people who have no hope, for the people for whom you can do nothing definitive, you have to try and find a cure."

Dr. Reed's research is funded by three grants from the National Institutes of Health.

–Toni Baker

Dr. Guy Reed

His Brother's Keeper

Childhood Tragedy Plants Seed to Unravel Medical Mysteries

The first monoclonal antibody Dr. Guy L. Reed III made with potential therapeutic value he named after his younger brother, Ricky.

Richard Wadden Reed died at age 11 of a rare congenital kidney defect that medicine could not repair or even treat very well. His life and death planted a seed that would one day prompt his brother to do better for others.

Dr. Reed was thinking he would be a writer when he stepped off the subway in New York City to pursue his undergraduate degree at Columbia University. He majored in English but in the process realized he was interested not only in literature and art but in how they occur. Science sneaked into his head and heart, and one day he called his mother to tell her he was going to medical school. As he was making the transformation, earning a master's degree in mathematical statistics and a medical degree at Stanford University before starting postgraduate training at Yale-New Haven Hospital, his chosen profession was undergoing some changes of its own.

A brave new world was dawning that centered on DNA, genetics and novel therapies. "You can design new molecules, things that do not even exist in nature, and use those as therapies for people," Dr. Reed says. "You can think about actually reversing a genetic curse that leads to a horrible disease. And, probably just as important, you can discover the cause of things that we still have no idea about."

Dr. Reed chose cardiovascular disease in part because at the time he was making choices, the specialty seemed ripe for not just understanding problems but for solving them. He completed cardiology training at Massachusetts General Hospital and a research fellowship at Harvard and Massachusetts General before joining the Harvard faculty in 1989.

Dr. Reed made the decision to join the MCG faculty this year because he sees a brave new world here as well, with a commitment to dramatically expand research and clinical initiatives in cardiovascular disease.

Cardiovascular research already is strong and getting stronger on the Augusta campus with two NIH Program Project grants, one dissecting the relationship between hypertension and inflammation and the other putting together key contributors to hypertension, including stress, genetics, sodium retention and fitness in order to better define the role of each. These collaborative initiatives complement numerous others in everything from sickle cell disease to angiogenesis in places such as the Vascular Biology Center, the Georgia Prevention Institute, the Departments of Physiology and Biochemistry and Molecular Biology and the Institute of Molecular Medicine and Genetics.

He hopes that expanded research will energize clinical programs, particularly in specialty areas such as integrated programs for heart transplantation, heart failure and electrophysiology that remain unavailable in the region despite excellent medical care at MCG and community hospitals. He looks forward to working with his counterpart in cardiothoracic surgery, Dr. Kevin Landolfo, to implement these and other clinical enterprises.

Teaching programs in cardiology likewise will reflect the growth, with increased numbers of fellowship positions to lure more cardiologists to Georgia to treat patients with the state's and nation's biggest killer. Subspecialty training will grow in areas such as electrophysiology, heart failure and cardiac-vascular interventions, a rapidly evolving area of noninvasive treatment of blockages in arteries outside of the primary heart muscle, such as the aorta and the carotids in the neck.

–Toni Baker

Mastering the Maze

Office Clears the Path for Clinical Research

Any clinical researcher can verify that getting a study from conceptual stages to clinical trials is no easy task. Some liken the process to jumping through hoops, while others describe navigating a maze of meetings, voice- and e-mail messages and paperwork.

"'Tedious' is perhaps the best word," says one Medical College of Georgia research assistant, speaking candidly of his first experience with the study approval process. "There are so many tiny details you must consider in every stage."

Before patient data can be collected, a principal investigator must meet the requirements of numerous committees, protocols and case statements and juggle a funding source's deadlines. Once the study is under way, additional expertise is needed to manage sensitive patient information, budgets and correspondence with a sponsor.

Fortunately for MCG faculty, a team has been assembled to lend support throughout the intricacies of a clinical trial. The Office of Clinical Investigative Services, the brainchild of Dr. Anthony Mulloy, associate vice president for clinical research, and Dr. Matthew Kluger, vice president for research, is one of many strategies to advance MCG's goal of $108 million in funded research by 2007.

"A clinical study has several steps it must take before it is approved. It must clear the Legal Office, the Office of Grants and Contracts, the Human Assurance Committee and MCG Health, Inc., if hospital resources are utilized," says Dr. Mulloy. "During this approval process, there can be a tremendous amount of communication taking place between the sponsor, the investigator and the approval entities. This office is here to assist with those communications and increase the timeliness of these stages."

The office streamlines internal approval processes and coordinates the needs of corporate sponsors with campus departments. The team includes an operations manager, licensed nurse clinicians, clinical research coordinators certified by the Association of Clinical Research Professionals, a regulatory specialist, a budget analyst and administrative support personnel.

"Our mission is to facilitate clinical research campuswide," says Kathy Miles, operations manager for the program. "We serve as a central contact point for the dialogue between principal investigators, clinical research staff and corporate sponsors. We're here to provide the gamut of support services for investigators and research staff, from analyzing the feasibility of a research study to preparing a Human Assurance Committee submission to tracking a research proposal through the approval process."

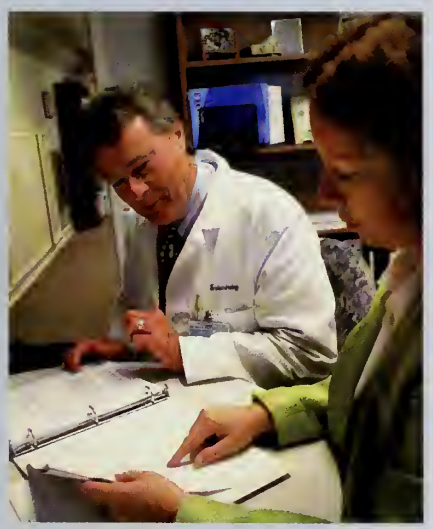
The Office of Clinical Investigative Services administers Study Manager, a Web-based program that financially and programmatically manages clinical studies.

"This technology provides the investigation team with detailed information regarding the study, e-mail reminders when patients need to be seen in follow-up visits, billing, patient recruitment information and much more," says Barbara Burton, administrator for Study Manager.

The office's most recent initiative is to help adult and pediatric oncology specialists explore cancer research opportunities at MCG. Working closely with Dr. Martha Terris, newly appointed chair of the MCG Cancer Committee, the office will provide services, technical assistance and guidance to oncology investigators and research staff.

"MCG is doing a good job at research, but we have the potential to develop clinical research in many new areas," says Dr. Mulloy. "We need to look at a number of possibilities of how we can become more competitive in the research arena, such as decreasing the turnaround time for study approval and further enhancing our clinical research capabilities."

–Ellen Gladden



DR. ANTHONY MULLOY AND KATHY MILES

Found in Translation

Office Helps Neurologist Master Research-Speak

When designing a clinical research study, Dr. Mary Hughes knows that paying for specialized expertise is worth every penny.

"When you first start conducting research, you usually lack research staff and knowledge of how to get studies through the Human Assurance Committee or navigate the budget process. It's all pretty much Greek," says the MCG associate professor of neurology.

Dr. Hughes breathed a sigh of relief when she learned that the MCG Office of Clinical Investigative Services could translate the Greek into English. After spending eight months preparing a recent study for grant submission, she tapped into the office and has been among its biggest cheerleaders ever since.

"I know most of the faculty have had the same thought about this service that I had: 'If I don't have the research funded yet, how am I going to pay someone to help me begin the study?' What surprised me was that we could cover the office's expenses in the initial budget of the study and our sponsors are very willing to pay for it," she says. "So we really had no out-of-pocket costs for getting the study started."

With the office's help, "my colleagues and I were able to develop a protocol, get approval and start the study within two months," she says. "That's a much easier process than when we were trying to figure it out on our own."

As medical director of the Augusta Multiple Sclerosis Center, a collaboration of MCG and Walton Rehabilitation Center, Dr. Hughes has a patient population ripe for studies nationwide seeking to improve treatment for the incurable and disabling neurological disease.

"There's a lot of interest in being able to improve treatment options for these patients," says Dr. Hughes. "One of our goals is to recruit studies so that we can offer these opportunities to our patients.

"When you're new to research, some sponsors aren't too sure about you," says Dr. Hughes, who joined the MCG faculty in 1999. "They wonder, 'Are you really going to be able to run this study? Do you have the experience and the facilities?' And while I may be green, I have the resources that said, 'Yes, we really are going to be able to work well with you here.' And that, I think, has made us better candidates for opportunities we're involved in."

Now with seven studies in various phases, Dr. Hughes also can testify to the office's help in managing minor, though critical, details.

"You want to be reimbursed accurately for your time in a study and there are ways to calculate that," she says. "You might need dry ice, but forgot to budget it. There are all these little things that you may not think about. It has really been helpful to rely on that knowledge and have them guide us through the process."

In addition to support services, the Office of Clinical Investigative Services offers facilities for patient consultations with a lab conveniently located next door.

"They really are a great resource," says Dr. Hughes.

–Ellen Gladden

Pressing Forward

Nurse's Brush with Mortality Shapes Her Approach to Health Care

When Melissa Runyon graduated from high school in Warner Robins, Ga., in 1998, she had a clear plan: She would enroll at the University of Georgia, try out for the cheerleading squad, major in psychology, graduate in three years rather than the standard four, then move on to earn her master's degree.

But instead of enjoying her last summer of freedom before setting her plan in motion, the usually indefatigable Melissa was suddenly plagued by awful headaches. "It was a dizzying pressure headache that never went away," she says. "I knew something was wrong. I just didn't feel right."

She went to her lifelong pediatrician, who was concerned enough about the severity and sudden onset of the pain to order an immediate CT scan. When a doctor called only hours after the scan to relay the findings, Melissa knew that her well-laid plan was no longer in the cards.

She was diagnosed with an arteriovenous malformation, a congenital intertwining of blood vessels in the brain. The jumbled mass caused fluid to accumulate in her brain and threatened to choke the blood supply or rupture. The honor-roll cheerleader was suddenly staring mortality in the face.

"I was very overwhelmed, but my faith is strong and I knew God was in control," Melissa says. "You can't look back. You have to press forward."

She clung tenaciously to optimism, not only for her sake, but for the sake of her parents and older brother. "I felt like I needed to be strong for them," she says simply. "God enabled me to do that. They were strong for me as well. My mom was incredible and my father was a rock throughout this entire experience."

"Edward Hubbard said, 'God will not look you over for medals, degrees or diplomas, but for scars.' I hold this quote very close to my heart and covet its words. My scar is a daily reminder to me of just how precious life is, and to keep on fighting."

They soon realized how vital their strength would be. Melissa had two surgeries at Emory University in Atlanta—first an embolization to cut off the blood supply in the affected area of the brain, then a craniotomy to remove the malformed vessels.

"We knew there was a risk of brain damage or death," Melissa says. "I was very scared going into surgery, but I knew God was in control."

While the surgeon performed the painstaking work, Melissa's family paced the halls of the hospital. At one point, her mother stepped into a courtyard for fresh air. A woman whose sister had the same brain defect as Melissa handed Melissa's mother a yellow rose. "She said she had not tended to her flowers in weeks and that everything was brown and withered except for one blooming yellow rose," Melissa says. "She thought that if God could enable this rose to live and grow amongst the muck, he could do the same for us in the darkest of situations. She gave it to my mom as a symbol of hope."

Hope prevailed. The surgery was a success. But recovery was grueling. "Right after the surgery, I couldn't read or speak because of the brain swelling," Melissa says. "I had seizures. I had to relearn to walk, to do math ... to do everything."

While her high school classmates went off to college, Melissa recovered at home. "I played lots of Nintendo," she says with a laugh, noting that the activity was doctor's orders to enhance hand-eye coordination. But there was little to laugh about during those months.

"Sometimes I couldn't tell reality from non-reality," Melissa says. "For instance, my grandmother had passed away two years earlier—a really horrible time—and I kept reliving it as if it had just happened. I also had double vision and alterations in my sense of smell and taste."

Yet Melissa's optimism never waned—and true to her achievement-oriented nature, she began formulating a new plan. "Being a patient made me feel like I had been called to help people," she says. Melissa decided to be a nurse.

Five years later, her plan is in motion. After several months of recuperation at home, she earned liberal-arts credits at UGA and Middle Georgia College, then enrolled at MCG.

At one point, her mother stepped into a courtyard for fresh air. A woman whose sister had the same brain defect as Melissa handed Melissa's mother a yellow rose.

By the time she reached MCG, most of the surgery side effects had abated, but the left side of Melissa's head will always be weak, and school work was harder than she expected. "God has humbled me in numerous ways, and grades were definitely one," she says. "They weren't near the grades I used to make prior to surgery, but I will say this: I have never worked so hard for the grades I earned at MCG."

Her teachers were wonderfully supportive, she says, though she never asked for special consideration. She particularly noted the support of Dr. Katherine Nugent, then interim dean of the school, and Dr. Martha Bradshaw, chair of undergraduate studies. "Melissa worked very hard at achieving academic excellence at MCG," Dr. Nugent says. "Throughout her enrollment, she encountered multiple academic challenges but continued to succeed and achieve her goal. Her personal experiences have complemented the knowledge and competencies acquired in the program, enabling her to care for her patients in a professional, competent and caring manner."

Melissa graduated last May and began her career in the oncology unit of Memorial Hospital in Savannah, Ga. "I think my being here was truly meant to be," she says. "The turnover rate is very low here, and there weren't any job openings when I first applied. Then one opened unexpectedly. I think it really confirmed my calling to be in the oncology field."

She tries to offer the same hope and inspiration to cancer patients that her nurses offered when she was fighting for her life. She shares her story when she thinks it will help and even shows patients the "battle scar" on the left side of her head.

"Edward Hubbard said, 'God will not look you over for medals, degrees or diplomas, but for scars.' I hold this quote very close to my heart and covet its words," Melissa says. "My scar is a daily reminder to me of just how precious life is, and to keep on fighting."

–Christine Hurley Deriso

For the Record

Federal Plan Broadens Scope of Health Information Administrators

What if...

...you never had to fill out another medical history form?

...you needed emergency surgery while on vacation and found that the surgeon knew just as much about your medical history as your family physician back home?

...you could access your medical record as easily as your doctor could?

Visit a doctor's office and you're likely to add "writer's cramp" to your list of ailments by the time your appointment begins.

Filling out a medical history form may be tedious, but the information is vital to patients' well-being. Details about allergies, lifestyle, past illnesses and common family health problems, for instance, can make a huge difference in diagnosis, treatment and emergency care.

But what if you never had to fill out another medical history form? What if you needed emergency surgery while on vacation and found that the surgeon knew just as much about your medical history as your family physician back home? Or what if you could access your medical record as easily as your doctor could?

U.S. Secretary of Health and Human Services Tommy G. Thompson envisions just such a scenario. In July, Mr. Thompson unveiled a 10-year plan to build a new health information infrastructure that puts vital medical information at the fingertips of health care providers and consumers nationwide when needed.

"America needs to move much faster to adopt information technology in our health care system," Mr. Thompson said when releasing the action report ordered by President George W. Bush. "Electronic health information will provide a quantum leap in patient power, doctor power and effective health care. We can't wait any longer."

A nationwide electronic health record is in the best interest not only of individuals, but of entire populations whose health status may suggest trends or patterns when assessed collectively, according to Dr. Carol Campbell, associate dean for business operations in the Medical College of Georgia School of Allied Health Sciences and chair of the school's Department of Health Informatics.

Compiling and assessing health information is the role of health information administrators, Dr. Campbell said, noting that the MCG department is fully prepared to respond to new federal guidelines. The department's adaptability was put to the test two years ago when the federal government passed the Health Insurance Portability and Accountability Act to help safeguard patient privacy.

Centralizing health information is a logical next step, she said, citing the need for extreme vigilance to protect and manage access to the information along the way.

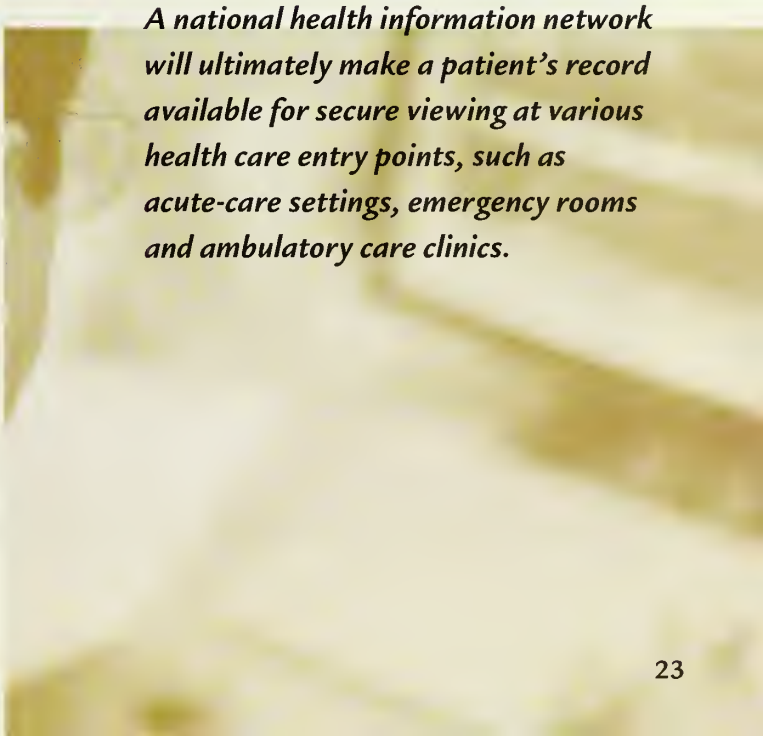
"Secretary Thomson's plan is expected to dramatically change the way health information is managed," said Sherry Smith, assistant professor of health informatics. "A national health information network will ultimately make a patient's record available for secure viewing at various health care entry points, such as acute-care settings, emergency rooms and ambulatory care clinics."

"Reaching this goal will result in better patient outcomes across a continuum of care," Ms. Smith said. "Paperless medicine means you will be able to go from one physician to another without having to provide your medical history in detail each time. Since your physician will be privy to your complete history and the computer will provide alerts and reminders, you may just walk away with a more accurate diagnosis."

Electronic records also can save billions of dollars annually by reducing duplicative care and lowering administrative costs, she added. In fact, as administrative tasks shift from humans to computers, the health informatics profession has the luxury of somewhat re-inventing itself.

"Health informatics professionals will spend less time compiling and gathering data and more time analyzing and evaluating the vast amounts of data that are readily available, thanks to the electronic health record," said Amanda Carroll-Barefield, assistant professor of health informatics. "Knowledge expansion rather than data accumulation is the informatics trend."

-CONTINUED



A national health information network will ultimately make a patient's record available for secure viewing at various health care entry points, such as acute-care settings, emergency rooms and ambulatory care clinics.

Instant, albeit controlled, access to medical information should also empower patients to serve as their own best advocates, Ms. Carroll-Barefield said. "As health care consumers, patients will become more actively involved in their health care decisions by being better-informed."

Of course, information is useless—or worse, harmful—unless it is accurate. The stakes are high as health information administrators' work assumes national implications. "Mastery of health informatics and information management is as important as the skills of the surgeon," said Dr. Campbell. "Measure twice and cut once has an entirely new meaning in the health care industrial complex we call evidence-based medicine."

As the Department of Health and Human Services refines its plan—the Centers for Disease Control and Prevention and state public health agencies are beginning to establish an infrastructure—MCG is staying abreast of the changes and adapting accordingly. In addition to offering baccalaureate and post-baccalaureate programs in health informatics, MCG also has established a master of public health degree with a major in health informatics.

"With the recent announcement of a national initiative to build a new health information infrastructure, the introduction of this new MCG graduate program could not be timelier," said Dr. Campbell. The school also will soon introduce an online program in health informatics, according to Dr. Shelley Mishoe, dean of the School of Allied Health Sciences.

–Christine Hurley Deriso

U.S. Secretary of Health and Human Services Tommy G. Thompson unveiled a 10-year plan to build a new health information infrastructure that puts vital medical information at the fingertips of health care providers and consumers nationwide.

FOR MORE INFORMATION ABOUT THE DEPARTMENT OF HEALTH AND HUMAN SERVICES' DECADE OF HEALTH INFORMATION TECHNOLOGY REPORT, VISIT

WWW.DHHS.GOV/NEWS/PRESS/2004PRES/20040721A.HTML

Gayle E. Wooding

'So Many Options Opened Up for Nurses'

GAYLE WOODING

Nurse: Someone who treats patients in a hospital.

It isn't Webster's definition, but Col. Gayle E. Wooding says that was her impression of the field when she joined its ranks more than 40 years ago.

"Way back when, in the old days, nurses' options were hospitals or public health, period," says Col. Wooding, who recently became a founding member of the Medical College of Georgia Milton Antony Guild. "But so many options opened up for nurses, it's just unbelievable."

She's living proof. Col. Wooding earned a nursing diploma as a young woman, then put her skills to work in the U.S. Army. Several years later, she realized she could quickly and conveniently earn an MCG bachelor's degree in the field. "I learned that MCG had one of the best, if not *the* best, degree-completion programs available."

With the military's blessing, she took a leave of absence and in 1977 graduated from the MCG School of Nursing with a bachelor's degree. "It was a wonderful experience," she says. "We were treated truly as adults and given credit for the life experience that many of us had as older, non-traditional students."

With her degree in hand, she switched from active duty to the Army Reserve, then embarked on a multidimensional career. Acquiring her master's degree along the way, Col. Wooding worked in fields including epidemiology, veterans' care, hospital nursing, supervision, home health care and legal consultation. The legal work—reviewing nurses' charts, notes and other documentation for use in malpractice cases—evoked both consternation and empathy.

"I found the biggest problem was that nurses did not adequately document what they did," she says. "There were cases where I knew things had been done but there was no record of it. But I understood. There was so much paperwork that they were overwhelmed. They couldn't be with patients and do the paperwork, too, so the paperwork sometimes fell to the wayside."

"Way back when, in the old days, nurses' options were hospitals or public health, period. But so many options opened up for nurses, it's just unbelievable."

Col. Wooding is heartened that many health care facilities now have measures in place, such as bedside computers so that nurses can record their notes immediately, to ease the burden.

She recently retired and moved to Williamsburg, Va., fertile ground to indulge her love of Civil War history. She hopes to serve as a plantation docent and continue enlisting her dog, Katie, to volunteer as a pet therapist. Her love for animals has grown through the years; when living in Gainesville, Fla., she volunteered with the University of Florida College of Veterinary Medicine. "I took care of premature and injured foals in the equine neonatal intensive care center," she explains. "It was just like pediatric nursing: the mares come right along with their babies, so you have to treat Mama, too."

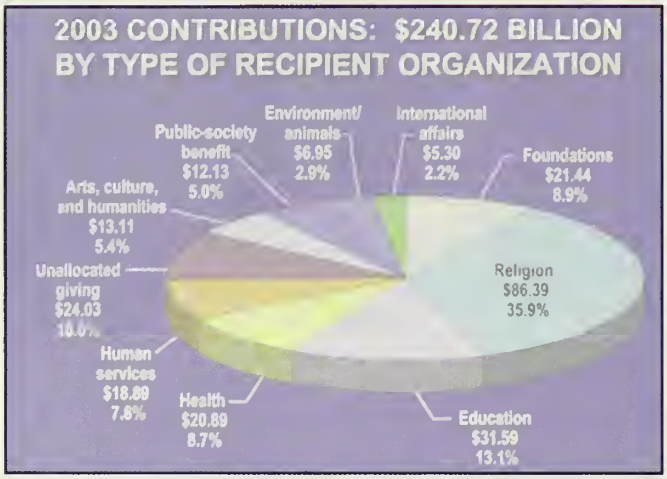
As for her own brood, she says Katie makes her family complete. "I love animals," she says with a smile. "Just one at a time."

She is proud to be a founding member of the Milton Antony Guild, named in honor of MCG's founder. Founding members pledge $250,000 or more to MCG through a will, charitable trust, charitable annuity and/or non-binding declaration of trust. "It's a privilege to support the university that made my career possible," she says. "I'm happy to play a role in ensuring an excellent MCG education for future generations."

–Christine Hurley Deriso

Health & Education Rank High in Charitable Giving

Editor's note: Emily Cummins, a planned giving advisor at the Wachovia Center for Planned Giving, a division of Wachovia Trust, contributed to the information in this article.



National survey results are in, and the figures are impressive.

"Giving USA," a national report on the state of philanthropy, is prepared annually by the American Association of Fundraising Counsel. Results from 2003 data were released in July, and fundraising is finally starting to feel the benefits of economic recovery. Controlling for 2.3 percent inflation, charitable giving rose by almost 1 percent in 2003.

Nationwide, education and health continue to be high priorities in charitable contributions. In a ranking of 10 priorities, religious organizations are the number-one recipients of charity in America. In second place, educational institutions received 13.1 percent of charitable contributions. In fourth place, health care organizations received 8.7 percent of gifts.

We follow philanthropic trends in education and health because these are our special areas at MCG. We work diligently to communicate our university's mission of teaching, research and health care. Please allow us to convey another energetic "thank you" for hearing our call.

Now more than ever, the Medical College of Georgia depends on your support. "Giving USA" reported that bequests increased by over 10 percent nationwide last year. Remembering MCG in your will is one of the best ways to ensure the long-term success of this institution while optimizing wellness and quality of life through research, patient care and education.

Charitable gift annuities are another powerful tool for contributing to MCG while generating immediate income to you. In exchange for a gift of cash or stock, you will receive not only a tax deduction, but an annual income stream that will remain fixed for life. For example, a gift of $10,000 from a 68-year-old donor will provide a 6.3 percent payout, or $630 every year for life. Charitable gift annuity rates can go as high as 11.3 percent. Please do not hesitate to call us for individual information.

Charitable gift annuities, along with bequests and other planned gifts, are a meaningful way to meet multiple goals. Thank you again for your consideration and support. National survey results certainly reinforce our belief in the generosity and commitment of charitable donors.

Where There's a Will...

Many options are available to name the Medical College of Georgia Foundation, Inc. a beneficiary in your will. These include:

- bequest of a fixed dollar amount
- percentage of your estate
- contingent gift in which funds go to MCG if a designated beneficiary predeceases you
- trust that pays income to a designated individual for life
- gift in memory/honor of yourself, your family or a person you have loved and admired

For more information, contact Tony Duva, director of planned giving, at (800) 869-1113 or aduva@mcg.edu.

Information in this article is not intended as legal advice. For legal advice, please consult an attorney. Tax laws are subject to change.

Medical College of Georgia
Allied Health NEWS
Fall 2004

Dr. Mishoe Lauds School's Achievements

The Medical College of Georgia School of Allied Health Sciences is embracing traditional values while forging new ground, according to Dr. Shelley Mishoe, dean of the school.

"As we grow our research and educational missions, we can't lose sight of what drew us into the health professions: caring for others," said Dr. Mishoe during her State of the School Address July 14.

Dr. Mishoe discussed the school's strategic goals to broaden its scope and enhance its mission in areas including professional development, education, research, clinical care and development.

Collaboration with other disciplines and entities both on campus and in the larger community is a vital component of success, she said.

Such collaboration has always been a hallmark of the school's success, she said, noting its close ties with state organizations to meet Georgians' health care needs in the allied health sciences.

The school continually evolves to keep pace with those needs, Dr. Mishoe said, citing new programs including a master of public health program in health informatics, a doctoral program in physical therapy, an Internet-based program in medical technology and distance-learning programs in radiologic sciences.

Proposed new programs include master's degree programs in physician assistant, biomedical technology and respiratory therapy; an online program in respiratory therapy; and a Ph.D. program in rehabilitation sciences.

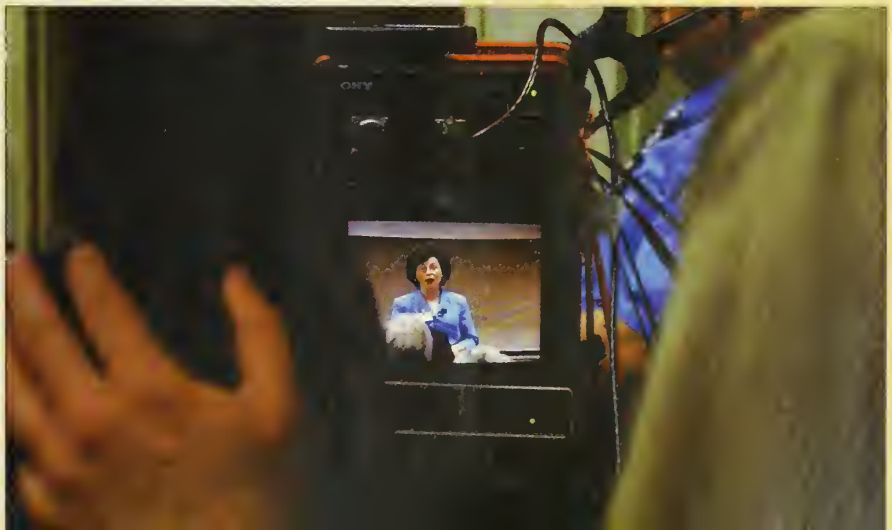
She lauded the faculty's dedication in meeting their students' needs—a commitment reflected in the school's 100 percent pass rate on certification and other credentialing exams. "Those are astounding teaching outcomes," she said.

Enrollment in the school has grown 15 percent since 2002, and with related challenges such as ratcheting up research initiatives and overseeing 650 clinical agreements, Dr. Mishoe stressed that time management is a crucial element of success. She is analyzing ways to optimize productivity. "The biggest expense of any organization is personnel, and if we aren't conscious of how we spend our time, we could be unintentionally wasting our resources," she said. Increasingly, faculty are accepting leadership roles in professional organizations and appointments to editorial boards of peer-reviewed journals, reflecting the school's efforts to optimize its national visibility and reputation.

Dr. Mishoe also is eager to help educate the public about the importance of the school's work. "We know what we are and what we can be, and the rest of the world doesn't seem to know it yet," she said. "That can be frustrating at times."

Yet the effects of the school's hard work ripple throughout every segment of society—a testament that should make every member of the school's community very proud, Dr. Mishoe said. "We are blessed to work at an institution where our work is so important and so valued by society."

DR. SHELLEY MISHOE CITES STRATEGIC GOALS IN THE AREAS OF EDUCATION, RESEARCH AND SERVICE.



Dr. Guion Participates in Leadership Institute

Dr. W. Kent Guion, associate dean for academic affairs in the Medical College of Georgia School of Allied Health Sciences, was one of 30 leaders nationwide to participate in the 2004 American Association for Higher Education Black Caucus Leadership and Mentoring Institute July 11-17 at Savannah State University.

The institute taught leadership skills to help prepare African-Americans for senior positions in administration and academia.

"Although a relative newcomer to our institution, Dr. Guion has enthusiastically and successfully transitioned into his new administrative responsibilities," said Dr. Shelley Mishoe, dean of the School of Allied Health Sciences.

"Participation in this institute parallels the types of activities MCG and the University System of Georgia support for career development."

The American Association for Higher Education is an independent, membership-based, nonprofit organization dedicated to cultivating skills for higher education.

Roundtable Yields Football Guidelines

From 1995 to 2001, 21 young football players reportedly died from heat stroke in the United States.
–National Center for Catastrophic Sport Injury report

Former high school football players may have less-than-fond memories of coaches who withheld water or demanded extra laps around the field on hot days to toughen up the team.

Dr. Michael Bergeron, an applied physiologist and assistant professor of physical therapy in the Medical College of Georgia School of Allied Health Sciences, cringes at the thought. He conducted research last fall with Augusta's Lucy Craft Laney High School football team to examine levels of dehydration and heat strain on the field.

"From 1995 to 2001, 21 young football players reportedly died from heat stroke in the United States," he said, citing a National Center for Catastrophic Sport Injury report. "Just recently, I read an article about a high school senior in Dallas dying after football practice and two others on the team being hospitalized for heat-related illness. Despite increased awareness, heat- and hypohydration-related problems persist on the football field, particularly in preseason practice."

Dr. Bergeron recently co-chaired an American College of Sports Medicine roundtable titled Youth Football: Heat Stress and Injury Risk to develop guidelines for preseason youth football training. The roundtable, held in Indianapolis, was funded by NFL Charities and Gatorade. Topics included fluid loss, core temperature responses, heat cramps, exertional muscle failure, uniform limitations and related issues.

"Our research underscored the importance of hydration before practice," said Dr. Bergeron, who collaborated with Drs. Verle Valentine and Joel Brenner in the MCG Departments of Family Medicine, Orthopaedic Surgery and Pediatrics on the study funded by an MCG Department of Family Medicine Curtis G. Hames research grant.

In addition to ample fluid intake, the roundtable highlighted the importance of gradual transitions to full practice intensity and using full gear, as well as adjusting practice uniforms and intensity on hot and humid days.

Dr. Bergeron and the American College of Sports Medicine will work with the National Federation of State High School Associations, the American Academy of Pediatrics and the National Athletic Trainers Association to ensure that the findings make their way to the playing field.

Dr. Bergeron is a fellow of the American College of Sports Medicine.

–Christine Hurley Deriso

Taking Home the Gold

Ben Taylor (right) accepts team's trophy

Physician assistant students Bradley Holt and Scott Martin represented MCG recently during the Georgia Association of Physician Assistants' medical challenge bowl, a "Jeopardy"-type format pitting students from Georgia's three physician assistant programs against each other to test their knowledge. After a tie-breaker, the MCG team emerged victorious. "We hope this is the start of a long tradition," says Ben Taylor, assistant professor and associate director of the Department of Physician Assistant.

Medical Illustrators Garner Awards

The following students, faculty and alumni of the Medical College of Georgia Department of Medical Illustration received awards during the 59th annual meeting of the Association of Medical Illustrators in Cleveland July 28-Aug. 1:

Cancer Survivor Carries Torch for Others

Brian Martin marvels in retrospect at the naivete that characterized his battle against cancer.

"When I look back, I realize how invincible I felt," said Mr. Martin, a senior in the Medical College of Georgia Department of Occupational Therapy. "To me, having cancer was like having the flu. I didn't realize how serious it was until it was all over."

BRIAN MARTIN PLANS TO HELP SPECIAL-NEEDS CHILDREN OPTIMIZE THEIR ABILITIES.

Mr. Martin, a native of Alpharetta, Ga., was 15 when he was diagnosed with Hodgkin's disease, characterized by an uncontrollable proliferation of lymph node cells. "I really felt fine, but I had a lump on my neck," he said.

Suddenly, his teen life was a blur of chemotherapy, radiation and hospital visits. "My mom was the one who really suffered," he insisted, still intent six years later on shrugging off any of his own hardships.

Mr. Martin's only agenda was completing his treatment so he could get on with his life. He wanted to become a teacher.

The dream seemed within reach when his cancer was found to be in remission by the time he graduated from high school. He wasted no time. Mr. Martin enrolled in the University of Georgia and spent summers as a camp counselor for special-needs children.

"I have a passion for helping children in need," he said.

A love of teaching, a knack with kids, a personal experience with disease ... *bingo*. Mr. Martin tweaked his teaching plans and transferred to MCG in 2002. Now he's living his dream, learning skills to help special-needs children overcome any disadvantages and keep up with their classmates.

"Occupational therapy really fills the bill for me," he said.

While earning his degree, he stays busy volunteering for several causes and organizations, including the Leukemia and Lymphoma Society. "Brian is an extraordinary young man," said Kate Wicker of the Leukemia and Lymphoma Society's satellite office in Augusta.

"I'm just happy to be able to help other people," he said. "I think I have an incredible perspective on life now."

–Christine Hurley Deriso

CAMERON SLAYDEN: *Orville Parkes Student Best of Show Award for The Blood Brain Barrier, Student Award of Excellence in Instructional Color for The Blood Brain Barrier and Certificate of Merit in Editorial for Guillain-Barre Syndrome PNS Demyelination*

MICHAEL JENSEN: *Student Certificate of Merit in Instructional Color for Parotidectomy*

LAURA SAWCHYN: *Student Certificate of Merit in Instructional Color for Auditory Pathways*

KIP CARTER (CLASS OF '82): *Will Shepard Award of Excellence in Instructional Color for American Trypanosomiasis*

ANDREW REKITO (CLASS OF '02 AND MCG MEDICAL ILLUSTRATOR): *Russell Drake Award of Excellence in Instructional Line for Dissection for Anterior Cervical C1-C2 Approach and Certificate of Merit in Instructional Color for Traumatic Cerebral Hematomas*

FRANK CORL (CLASS OF '97): *Award of Excellence in Editorial for Image-Guided Biopsy of Mediastinal Masses and Certificate of Merit in Instructional Color for Surgical Ventricular Restoration*

MARK SCHORNAK ('87): *Ralph Sweet Best of Show Award for Transcallosal-Interfornical Approach to Hypothalamic Hamartoma and Certificate of Merit in Editorial for Intracranial Aneurysms*

ROBERT EDWARDS ('94): *Certificate of Merit in Medical Legal for Laparoscopic Choleystectomy*

CRAIG FOSTER ('92): *Certificate of Merit in Animation for Garenoxacin: The First Desflorinated Quinolone*

ALLISON WRIGHT ('90) AND GENE WRIGHT ('90): *Illustrated Medical Book Award for Pfizer Atlas of Common Painful Conditions in Dogs and Cats*

GENE WRIGHT: *Muriel McLatchie Miller Fine Arts Award for his sculpture, Pelvis*

Patient on a Roll After Student Donation

Few people have better justification than Carolyn Jude to forgo exercising regularly, yet few people have gone to greater lengths to do it anyway.

Ms. Jude lives alone and can't drive. Her many disabilities include legal blindness and poor balance, necessitating the use of a wheelchair or walker. Yet she is remarkably determined to optimize her fitness, a commitment that she knows will enhance her quality of life.

She also likes to help others. For several years, Ms. Jude has volunteered for the Medical College of Georgia Department of Physical Therapy, inviting students to practice their skills adapting her home for various physical limitations. The "makeovers" are intended to optimize the independence and autonomy of a person who, for instance, has difficulty reaching tall shelves or using a bathtub. The adaptations actually help Ms. Jude, since she has disabilities herself, but they also help the many patients the students will encounter during their careers.

"She's a very gracious volunteer," said Yolanda Abernathy, who will graduate from the department in December.

When the physical therapy students realized that they could return the favor, they seized the opportunity. One student in the class, Shanika Shannon, learned last fall that Ms. Jude wanted a recumbent bicycle so she could exercise daily without having to leave her home. The bike's design enables cyclists to sit in a reclining position—a perfect adaptation for Ms. Jude's disabilities.

With the help of her teacher, Assistant Professor Charlotte Chatto, Ms. Shannon spearheaded an effort to fulfill the wish. She explored funding sources for the bicycle but didn't have much luck. So she turned to her classmates. Ms. Chatto explained the need and invited the students to make a contribution. The response was overwhelming. The students raised $380.

"I am so proud of the class," Ms. Chatto said. "They are role models for their fellow students. They took a person's need and advocated compassionately and effectively. They followed through to make it happen and they should be very proud of themselves."

The students took Ms. Jude to Augusta's Sports Authority, where store officials spent an hour helping her try out different bikes. When she chose one she liked, the store offered a huge discount. "We ended up paying $100 for the bike," Mrs. Abernathy said. "The store was so gracious and generous." The class also bought an extended warranty for the bike and a blood pressure/heart rate monitor to ensure that Ms. Jude exercises safely. They developed an exercise program for her and have checked on her progress.

Ms. Jude was astonished by the gesture. "The students are so caring and nice," she said. "I use the bike for 30 minutes in the morning and 30 minutes in the evening every day. *Every* day."

The class plans to maintain an ongoing fund to help other patients in need. "We go into this field wanting to help people, and sometimes we get frustrated when we don't have the resources we need," Mrs. Abernathy said. "We might not be able to do much individually, but we found out there's power in numbers."

–Christine Hurley Deriso

Carolyn Jude selects a bicycle with the help of Charlotte Chatto (seated, left), physical therapy senior Yolanda Abernathy and Jonathon Jones, president of the Physical Therapy Class of 2004.

Medical College of Georgia
DentistryNEWS
Fall 2004

Hard Work Propels School Forward

When School of Dentistry Dean Connie Drisko says that things are looking up, she means it literally.

She cited increases in research funding, clinic volume, student test scores, alumni participation and many other indicators as she reflected on the past year during her July 27 State of the School Address.

"We've done a lot of work, and we have a lot of work to do," she said, applauding the efforts of faculty, staff, students, administrators, alumni and friends, all of whose efforts have propelled the school forward.

For instance, research funding grew 128 percent this year, and the school is rapidly expanding in areas such as biomedical and biomaterials research. Such research not only garners national and international acclaim but offers exciting advances for patients and creates a stimulating environment for students, she said.

And the school's students have never been more impressive, Dr. Drisko said, noting that 219 applicants vied for this year's 62 first-year spots. Seventeen of the 62 freshmen come from medically underserved areas of the state. Eight are African-American and four are Hispanic, reflecting the school's commitment to diversity. "And as we've become more diverse, our grade point average has gone up," Dr. Drisko said.

The school is also busy recruiting top-notch new faculty and hopes to establish three new endowed chairs soon. "When I came to MCG, I was told that if we find the right people, MCG will help us get them here, and that has certainly been true," she said.

Dean Connie Drisko says school's achievements bode well for upcoming accreditation visit.

As the school grows, its focus grows as well, she said, observing that "dentistry is about so much more than just teeth." The school works closely with faculty from other MCG schools and with community health care professionals to add expertise in areas such as pain management, craniofacial reconstruction, cancer and systemic disease.

"We have a tremendous working relationship with health care providers throughout Augusta," she said. "Many of the patients we see wouldn't have access to the treatment they receive if it wasn't for this fine institution. We're way at the top in terms of patient care and the quality of our programs."

The school is growing so quickly that it is outgrowing its surroundings. Dr. Drisko said the school is raising funds to renovate or rebuild the dental school. AFTCO, a dental practice transition consulting firm, recently pledged $100,000 for the dean's fund for innovation, and a longtime supporter of the school, Dr. Emile Fisher, pledged $50,000 as the first contributor to the school's facilities fund.

Such generosity couldn't come at a better time, Dr. Drisko said. "The dentist-to-population ratio has decreased nationwide and is expected to reach an all-time low by 2020." MCG has already increased its class size and plans to increase it further in response to future workforce demands. The school's achievements bode well for its accreditation site visit this November, Dr. Drisko said. "Our goal is to be premier dental school, and we're well on our way."

Campaign Committee

The School of Dentistry has formed a Campaign Committee to oversee fundraising initiatives. Members are:

Dr. Emile Fisher, a graduate of the Emory University School of Dentistry who completed a periodontics residency at Northwestern University, has funded many scholarships for MCG dental students. He practices in Atlanta.

Dr. George MacMaster, who practices pediatric dentistry in Alpharetta, Ga., graduated from the MCG School of Dentistry in 1986 and completed a pediatric dentistry residency at the University of Florida. He is a strong supporter of the Department of Pediatric Dentistry. His daughter, Meaghan, is a member of the School of Dentistry Class of 2008.

Dr. David Owings, a member of the School of Dentistry Class of 1973, practices general dentistry in North Augusta, S.C., with son Alan Owings ('92) and daughter Becky Owings Sam ('92). He recently opened a new building in North Augusta and has supported student recruiting efforts at the school for several years.

Don Waters, president and chief executive officer of Brasseler USA, earned a law degree from the University of Georgia in 1978. With world headquarters in Savannah, Ga., Brasseler USA is a leading brand for precision steel, tungsten carbide and diamond rotary and related cutting instruments for dental, medical and industrial applications.

Don't Miss Dental Career Night

Seeking an associate? Have a practice opportunity available? Plan to attend Dental Career Night Friday, Jan. 21 to connect with sophomore, junior and senior students in a friendly, relaxed atmosphere. It's a chance to show off your practice to potential associate/partners. Register early. Space is limited. Contact Natalie Sharp at (706) 632-3028 or natsharp@tds.net.

Researchers Probe Biological Interactions with Resin

As plastics find increasing applicability to biomedical products, Medical College of Georgia researchers are putting them under the microscope, literally and figuratively, to ensure their safety.

Plastic has long been a technological mainstay because it can be molded into any shape, then hardened with heat or light. The latter process, called light-polymerized resin technology, has found several applications in dentistry, according to Dr. George S. Schuster, associate dean for research in the MCG School of Dentistry and chair of the Department of Oral Biology and Maxillofacial Pathology.

"Resins are used for tooth restorations (fillings) and as denture bases," said Dr. Schuster, "and they are now being used for things such as orthopaedic cements and vascular adhesives."

It was initially believed that resins were inert, not interacting with surrounding tissues, but research has disproved that.

"In the mouth, resins interact with gingival tissue and the tooth pulp in some cases," Dr. Schuster said. "As they age, they begin to break down and release bioactive components. That's not to say they aren't safe—all indications are that they are—but they certainly are bioactive."

Specifically, Dr. Schuster and his colleagues have found that resins interact with the cell membrane. "The cell membrane, to a great extent, determines whether cells will be stimulated to divide or to die," Dr. Schuster said. "The membrane is one of the major regulators that tell the cell nucleus what to do."

The cellular research at this point indicates that the interaction seems fairly harmless, but the potential for damage can't be discounted. For instance, "if the cell gets the wrong signals [because of the resin], it may not divide enough to heal a wound," Dr. Schuster said. Also, collagen is normally produced during wound-healing—a process that, if stymied, could result in abnormally weak tissue at a wound site. An impaired cell membrane could also interfere with responses to the inflammation process.

In fact, inflammation—a normal immune response to injury but an abnormal symptom of many diseases—is a biological process that many researchers want to better manipulate. Resins, therefore, might hold promise for treatments in which some cell signals are targeted for activation while others are suppressed. But such applications are years down the road, Dr. Schuster stressed, while issues such as toxicity are much more pressing for people who already have mouths full of resin.

At this point, resins are the only material used for dentures. And consumers are increasingly opting for resins, rather than amalgams, to fill cavities. Amalgams, made from metal, are silver-colored and therefore aesthetically inferior to tooth-colored resins, Dr. Schuster explained. Some consumers also fear mercury poisoning from amalgam fillings, though those fears are almost certainly unfounded, he added. Ultimately, he said, both materials have a valid role in dentistry.

"The ultimate goal is to make resins inert," Dr. Schuster said. "But in the meantime, we have to understand how they interact with the body."

–Christine Hurley Deriso

Safety is the chief consideration in Dr. George S.Schuster's study of plastics.

Mr. Gentry Named Associate Dean

Darrell E. Gentry, decision support manager for MCG Health, Inc., has been named associate dean for business and finance in the Medical College of Georgia School of Dentistry.

Mr. Gentry, who earned bachelor's and master's degree in business administration from Augusta College (now Augusta State University), has over 17 years of accounting and financial management experience in the health care industry. After serving in the U.S. Army and practicing as a radiology technician at Eisenhower Army Medical Center for several years, Mr. Gentry joined MCG Hospital and Clinics as an accountant.

Since 2000, he has implemented and managed MCG Health, Inc.'s decision support system, including a cost accounting module, budget and financial reporting module, patient reporting module and revenue module.

"We are very pleased to have Mr. Gentry on board to apply his vast financial management expertise in the School of Dentistry. As our school grows in every area, including research, education and clinical care, these skills will be invaluable."

–Dean Connie Drisko

CLASS NOTES

Dr. Potter Named to Leadership Institute

Dr. Brad Potter, vice dean of administration and professor of oral diagnosis and patient services in the Medical College of Georgia School of Dentistry, has been invited to participate in the 2004-05 American Dental Education Association Leadership Institute.

The association invited 21 fellows, including Dr. Potter, to participate in the yearlong faculty development program for dental and allied dental faculty and administrators. The fellows began the program with an orientation during the association's annual session in Seattle.

"These individuals are among the nation's finest dental school educators," said Dr. Richard W. Valachovic, executive director of the association. "They were chosen for their potential to become the foremost leaders in dental education and have accepted the challenge to see the broader issues affecting higher education and society. They are the trailblazers who will lead our institutions in the future."

The institute is a four-phase program providing leadership skills that participants can apply in their home

institutions. The first phase was a five-day program held in Stowe, Vt., in June focusing on personal and interpersonal leadership skills. The second phase takes place in Washington, D.C., in conjunction with the association's Advocacy Day on Capitol Hill.

The third phase will promote administrative skills necessary for effective leadership, and the fourth phase will take place during the association's 2005 Annual Session at which the fellows will assist with a full-day faculty development workshop. The fellows also must complete a project based on a series of interviews addressing a key issue in dental education that results in a paper suitable for publication.

"The institute offers dental schools an opportunity to cultivate future leaders while simultaneously helping position dental education to have a greater impact in higher education," said Dr. N. Karl Haden, associate executive director and director of the association's Center for Educational Policy and Research. "Not only will the fellows continue leadership in dental education, but they will also rise to leadership positions in higher-education administration."

Dr. Fay Stapleton Burnett *('84), Winder, Ga.*, is a solo general practitioner with Barrow Dental Associates, P.C. in Winder, Ga. She and her husband, the Rev. Brock Burnett, minister of First Presbyterian Church of Winder, have two sons: Brandon, 17, and Jordan, 13.

Barry "Bear" Jardine *('04)* is practicing dentistry in Boise, Idaho.

AWARDS

Hinman Scholars

The Thomas P. Hinman Dental Society, which has promoted continuing education in dentistry since 1912, awarded scholarships to seven Medical College of Georgia students during its 92nd Hinman Dental Meeting in Atlanta last spring.

The recipients are H. Thomas Akins, Holland Maness, Jason A. Myerson and Ben Tanner in the School of Dentistry and April S. Brooks, Ismael Gutierrez and Jennifer C. Morris in the School of Allied Health Sciences' Department of Dental Hygiene.

The students were among dental, hygiene and laboratory technician students at 33 southeastern colleges and universities receiving Hinman awards this year. The awards totaled more than $250,000. Recipients are selected by each school's dean and must be junior student members of the American Dental Association and in the top 10 percent of their class.

Periodontology Awards

Two Medical College of Georgia students have won Southern Academy of Periodontology research awards.

The academy sponsors an annual Billy M. Pennel Research Competition, named for a former MCG Department of Periodontics chair. The competition is open to periodontics residents and graduate students in training programs in nine southeastern states.

Dr. Cortney M. Davis, a School of Dentistry periodontics resident, won second place in the basic science category for research comparing the strength of gum tissue cells to epithelial cells, determining which attach more firmly to teeth. Her advisor is Dr. Regina Messer, MCG assistant professor of oral biology and maxillofacial pathology.

Dr. Richard L.W. Williams, an MCG graduate student and resident at Fort Gordon, won third place in the clinical science category for testing a bone cement that may reduce the need for autologous bone grafts to treat large bone defects. His advisor is Dr. Mohamed Sharawy, professor and director of oral biology/anatomy and professor of oral and maxillofacial surgery at MCG.

NIH Grant to Expedite Studies of Tooth-Filling Materials

As the American public increasingly seeks alternatives to silver fillings, a Medical College of Georgia researcher has received a $1.4 million National Institutes of Health grant to expedite his study of durable substitutes.

Dr. David H. Pashley, Regents Professor in the MCG School of Dentistry's Department of Oral Biology, has spent years studying materials that bond to teeth. His research has taken on a new urgency recently as widespread, though dubious, claims have been made about health risks associated with silver fillings.

"Silver fillings are excellent, durable, inexpensive restorative materials," Dr. Pashley said, adding that claims of health risks are unsubstantiated. Yet "millions of patients are demanding that their dentists replace silver fillings with tooth-colored, metal-free plastic restorations," he said.

Plastic fillings last about seven to 10 years, compared to the typical silver-filling lifespan of 20 to 30 years. "Clearly, improvements in the strength and durability of bonded adhesive restorations must be made," Dr. Pashley said.

To prepare a tooth for a filling, dentists chemically treat it to make it more porous—a process known as acid-etching. This process exposes the tooth's spaghetti-like mass of tiny collagen fibers. Adhesives must wet and envelop each tiny fiber to bond with the tooth. In the case of plastic, the adhesive sticks durably to the tooth initially, but loses its strength after several years.

"This allows the bond to weaken to the extent that it may begin to leak, allowing oral bacteria to invade the tooth and cause cavities," Dr. Pashley said.

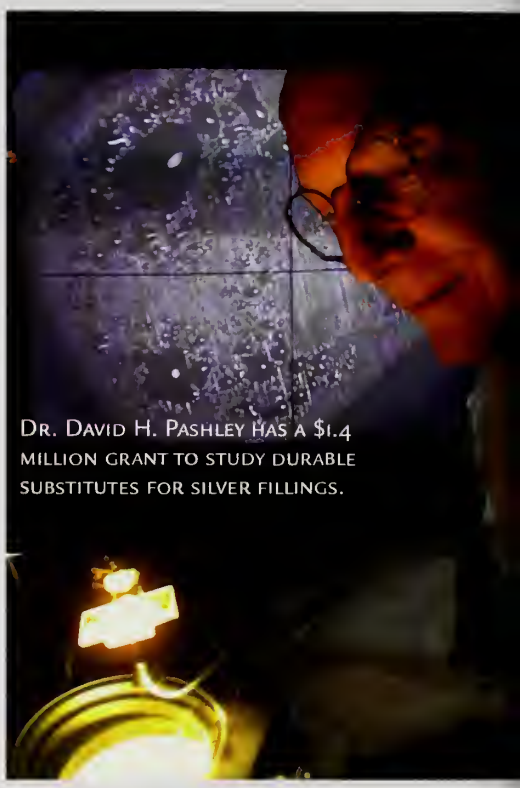
Dr. Pashley and his colleagues have pinpointed the breakdown. They discovered enzymes called matrix metalloproteinases that bind to collagen fibers throughout the body, including teeth. Normally in teeth, these enzymes are fossilized by being encased with mineral crystals, But when teeth are acid-etched to prepare them for fillings, the MMPs become activated and slowly destroy the fibers that anchor the plastic filling to teeth. By slowing this destruction, the researchers can increase the lifespan of plastic fillings. They found several chemicals that do just that. "For instance, chlorhexidine, a commonly used anti-bacterial agent used in some therapeutic mouth rinses, is an excellent inhibitor of MMPs," Dr. Pashley said.

The researchers also are studying improved plastics. "The current plastics tend to [absorb] too much water from saliva, making them swell at a microscopic level [and eventually weaken the bond]," he said. The scientists are studying liquid plastics that repel water.

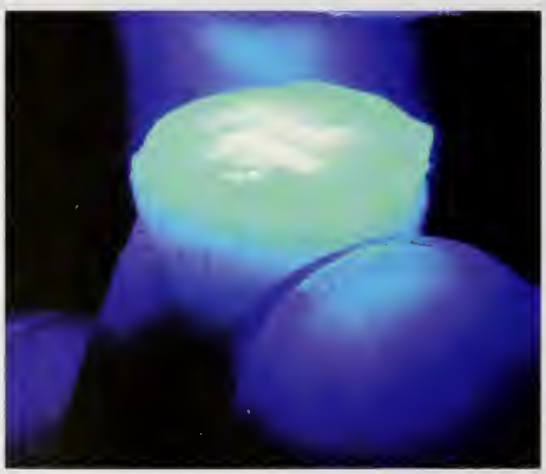
"Teflon is an extreme example of such a polymer," Dr. Pashley said. "However, it won't stick to teeth. We need to develop special [techniques] to coax water-repelling plastics into teeth so the bonds will be more stable over time."

The NIH grant will allow the researchers to step up their efforts and ideally introduce better fillings into the marketplace.

–Christine Hurley Deriso



Dr. David H. Pashley has a $1.4 million grant to study durable substitutes for silver fillings.



In work designed to improve the longevity of resin tooth bonds, liquid plastic is applied to teeth in layers. Each layer is light-cured to convert the monomers to polymers. By this process, entire tooth crowns can be made out of resin composite materials.

Medical College of Georgia
GraduateStudiesNEWS
Fall 2004

Tissue Linked to Stroke Treatment

The same tissue that helps a developing brain form its protective blood-brain barrier may protect the adult brain from the ravages of stroke, researchers say.

The choroid plexus has been relegated as a bystander in the adult brain, says Dr. Cesario V. Borlongan, neuroscientist at the Medical College of Georgia and first author on a study published in the May issue of *NeuroReport*.

But within the last five years, researchers across the world have been compiling evidence that in response to stroke as well as other brain injury or disease, the tissue may actually stimulate the production of stem cells that could help replace damaged neurons and neurotrophic factors that nourish brain cells, Dr. Borlongan says.

This latest study is the first to show the therapeutic potential of that natural response: when biocompatible microcapsules containing these choroid plexus cells were placed on top of the brains of animal models for stroke, stroke damage was significantly reduced.

"The transplanted choroid plexus may provide a potential new therapy to reduce and repair damage from stroke," Dr. Borlongan said. However, he noted that much work remains to explore the potential, including whether the findings in animal models hold true for humans and the best way to deliver that protection.

"We found that these animals that got transplanted choroid plexus had very small stroke areas," Dr. Borlongan said. "This is the first indication that choroid plexus is important tissue for the formation of new stem cells and/or secretion of trophic factors."

For his studies, Dr. Borlongan used choroid plexus cells taken from a rat or pig and placed inside tiny capsules designed by LCTBioPharma, Inc., in Providence, R.I., a subsidiary of Living Cell Technologies based in New Zealand and Australia. The capsules are designed to allow molecules, such as the neurotrophic factors, to escape and keep out inflammatory factors that could trigger an immune response and rejection.

"The next step is to do the same thing in a non-human primate model," said Dr. Borlongan, who will continue to document exactly how the choroid plexus reduces stroke size and resulting neurological and motor function damage, at least in animals. "We know it does something," he said, but he is still working to determine if that 'something' is producing neurotrophic factors and stem cells.

Other challenges between laboratory findings and an actual new therapy include the probability that the reparative benefits of choroid plexus tissue are needed immediately after a stroke to minimize brain damage. "At this time, the FDA generally won't allow invasive procedures immediately after a stroke unless they are in hemorrhagic stroke patients who need surgery to stop their bleeding. But invasive procedures can be used for chronic stroke, patients who are really sick, debilitated and not responding," Dr. Borlongan said. The only FDA- approved drug therapy to date in the hours immediately following a stroke resulting from occlusion of a blood vessel is intravenous infusion of the clot-dissolving drug, TPA.

Dr. Cesario V. Borlongan's study seeks to capitalize on a natural biological response.

That means the first clinical trials of this new approach likely would be in chronic patients, who may also benefit. "We want to show first that it's safe and second that it's feasible, that when you transplant these cells into a patient, they won't be rejected and the patient won't show any detrimental side effects," Dr. Borlongan said, estimating that such studies are at least a year away.

Still, despite the challenges ahead, he is excited about a therapy that augments the apparently natural healing response of this tissue, which is located inside the ventricles of an adult brain.

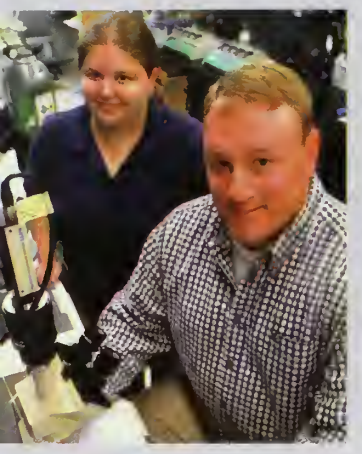
"We are trying to supplement a natural process," Dr. Borlongan said, that may have potential for stroke, Huntington's chorea and other neurodegenerative diseases as well as traumatic brain injury. "Transplanting choroid plexus tissue may open a whole new understanding of how to treat central nervous system disorders," he said.

–Toni Baker

CLASS NOTES

Dr. John Bryant Black *(endocrinology, '69)* has been named president of East Georgia College in Swainsboro, Ga. He previously served as special assistant to the vice chancellor for academic and student affairs. He served as vice president for academic affairs at Dalton State College from 1999 to 2003 and held a similar position at East Georgia College from 1994-99. He also taught at Augusta College, where he twice served as acting chair of the college's biology department. He is a native of Ann Arbor, Mich., and has a bachelor's degree in chemistry from Mercer University in Macon.

Grant Enhances Interdisciplinary Training



Christine Rigsby (left) and Jason Burnette

The Medical College of Georgia School of Graduate Studies has received a predoctoral training grant to encourage biomedical research students to collaborate across disciplines.

The National Research Service Award, a $560,764 grant awarded by the National Institutes of Health's National Heart, Lung and Blood Institute, provides training funds, tuition, a stipend and a travel budget for up to 18 students to present research in integrative cardiovascular biology.

"This is really an interdisciplinary project," said Dr. David Pollock, associate professor in the MCG Vascular Biology Center and author of the grant proposal. "I don't know that we've ever had a teaching program like this on campus, one that integrates cardiovascular and vascular biology research studies on the predoctoral level."

Those eligible for the funding are doctoral students who have completed the first-year core curriculum and are working with a faculty mentor in the Georgia Prevention Institute, the Department of Physiology, the Department of Pharmacology and Toxicology or the Vascular Biology Center. An MCG committee reviewed student applications, which included a student's academic record and a statement of goals.

Recipients for the first year of the five-year award are Jason Burnette, who is studying with Dr. Richard White in the Department of Pharmacology and Toxicology, and Christine Rigsby, who is studying with Dr. Anne Dorrance in the Department of Physiology. For the next four years, up to four students per year will be selected for stipends from the grant.

"Students had to submit their credentials and their mentor had to submit plans on how they are going to train the student," said Dr. Pollock. "It's a great achievement for those selected, but it's not an individual honor. The fact that we have these funds available will bring notoriety to our Ph.D. program. By awarding this grant to MCG, the NIH acknowledges our program's excellence."

The award also will help recruit graduate students, said Dr. Gretchen Caughman, associate dean of the School of Graduate Studies.

"One of our primary goals is to grow biomedical science doctoral programs in quality and quantity," said Dr. Caughman. "Extramural support is a vital component in achieving that goal. The nation's top-tier graduate programs are heavily funded by national training grants such as this, so this is our first step. From here, we continue to grow and build on the success of this program."

–Ellen Gladden

Dr. Imig's Inflammation Research Honored

Dr. John Imig, associate professor in the Department of Physiology at the Medical College of Georgia, has received the 2004 AstraZenica Young Investigator Award for Excellence in Renal Physiology by the American Physiological Society.

The award recognizes an outstanding young investigator working in renal physiology, pathophysiology or hypertension.

Dr. Imig is probing a cause-and-effect relationship between inflammation-regulating proteins and hypertension, a finding that could improve hypertension treatment. His research is funded by the National Institutes of Health and the American Heart Association. Dr. Imig also is a project leader on two NIH Program Project grants.

Dr. Imig earned a doctorate in physiology and biophysics from the University of Louisville in1990. He completed postdoctoral training in the Department of Physiology at the Medical College of Wisconsin, where he was awarded a National Institutes of Health postdoctoral fellowship. He came to MCG in 2001 from the Department of Physiology at Tulane University School of Medicine.

Dr. Webb Honored by American Physiological Society

Dr. R. Clinton Webb, chair of the Medical College of Georgia Department of Physiology, has been selected the first recipient of the Bodil M. Schmidt-Nielsen Distinguished Mentor and Scientist Award by The American Physiological Society's Women in Physiology Committee.

The new award honors a society member who has made outstanding contributions to physiological research and demonstrated commitment to excellence in training young physiologists. Dr. Schmidt-Nielsen, a faculty member in the University of Florida's Department of Physiology and Functional Genomics, was the society's first woman president.

"Clinton is a wonderful scientist and chair who has a talent for recruiting and mentoring other terrific scientists," said Dr. David M. Stern, dean of the MCG School of Medicine.

Those mentored by Dr. Webb expressed that sentiment in a series of letters supporting his nomination for the physiology award. "I can think of no greater action from a mentor than the desire to make his trainees successful and to do everything in his power to achieve this," wrote Dr. Brett M. Mitchell who recently completed his graduate work with Dr. Webb. "As my mentor and graduate advisor, Dr. Webb has taught me how to think critically, design intelligent experiments and communicate my findings in the field."

Medical College of Georgia
MedicineNEWS
Fall 2004

Stem Cell Research Targets Cerebral Palsy

Natural chemicals that assist healing may one day help transplanted adult stem cells integrate into an injured brain, helping children with cerebral palsy recover lost function, according to researchers at the Medical College of Georgia.

"We know that we can get stem cells into the brain and they will turn into brain cells, but we really don't know how well they work," said Dr. James E. Carroll, chief of the MCG Section of Pediatric Neurology. "The cells probably do form synapses (connections that enable brain cells to communicate). But the question is: Will all this integrate into improved function?"

Dr. Carroll is principal investigator on a new grant from the American Heart Association and an existing grant from the National Institutes of Health using an animal model of cerebral palsy to identify the best way to transplant stem cells.

With this latest grant, Dr. Carroll, who also treats patients with cerebral palsy, wants to determine whether transplanted stem cells work best when the cells are injected directly into the brain along with these natural chemicals, called chemokines.

Chemokines are growth factors that attract white blood cells and are quickly summoned to the site of an injury, such as a brain injury that occurs in cerebral palsy. More recently, researchers have found that chemokines also seem to attract stem cells to an injury site. However, at least in an animal model of cerebral palsy, the healing chemicals are present for only a few days after injury, Dr. Carroll has shown.

"Chemokines are produced normally, naturally and briefly after a brain injury of some type as part of the healing process," Dr. Carroll said. "But probably there are not enough of them produced and they are not produced long enough to do what we want to do. So we are working on ways to get additional factor into the brain to promote the integration of new cells long after the injury has occurred."

When he began his studies several years ago, Dr. Carroll was putting stem cells from donor mice into the circulation of an animal model of cerebral palsy.

Preliminary work had shown that stem cells migrated to the injury site, but his studies showed too few cells were making the journey. The two-year American Heart Association grant will enable to him to explore whether a direct injection into the brain can help increase the number of cells where they are needed and if the extra chemokines help them become part of a better-functioning brain.

He will try several direct approaches including injecting chemokines into the injury site first and stem cells second and taking the technically easier route of injecting both at the same time. To enable this approach, Dr. Carroll will use a virus' ability to infect a cell to get chemokines inside stem cells before they are injected.

Although stem cells are immature cells coveted for their potential to become many different types of cells, donated stem cells may trigger an immune response, much like a transplanted organ.

So Dr. Carroll also will compare the success of transplants that include the immunosuppressive agent, cyclosporine-A, to those that don't.

He'll also look at the bottom line: whether the motor skills of the animal model are improved following the transplant.

Since he began his studies of stem cell transplants, parents nationwide have asked when the technique will be available to help children. "I tell them we are working hard and making progress, but it is slow and there may be clinical trials in several years," Dr. Carroll says. Although he thinks there is potential for stem cell therapy to one day help restore function lost to the group of disorders known as cerebral palsy, many unanswered questions remain. One concern is whether these proliferating young cells might cause tumors. Also, cerebral palsy is not a single problem, but a complex disease in which virtually all brain cell types could need repair.

He noted that there is much parents and caregivers already do for children with cerebral palsy, including physical therapy along with botox injections and baclofen pumps to reduce debilitating spasticity.

Cerebral palsy, which affects about 500,000 people in the United States, is defined as brain damage that occurs before or during birth. The number of people with the disorder has increased over the last 30 years as more premature babies survive. Its effects run the gamut, from barely detectable to devastating loss of motor control. The causes are diverse as well, including everything from oxygen deprivation during birth to prenatal infections.

–Toni Baker

Dr. James E. Carroll (seated) studies research data with MCG research assistant Hereward Wimborne.

SEEP Plants Seeds for Health Professionals

Chris Franklin is giving back to the program that helped him navigate the "daunting" process of applying to medical school.

This summer, the second-year medical student was one of three Medical College of Georgia students who mentored undergraduate college students in the university's Student Educational Enrichment Program. Administered by the Office of Special Academic Programs in the School of Medicine, the seven-week summer program introduces disadvantaged and under-represented undergraduates to the environment of a health sciences university.

"I think SEEP is one of the factors that helped get me into MCG," said Mr. Franklin, an Augusta State University graduate who completed the program in 2001. "It gave me a feel for what would make my application stronger. It also gave me the self-confidence I needed. Applying for medical school is daunting."

Mr. Franklin led a group of 18 rising college sophomores and juniors through courses in physiology and medical writing, plus seminars in admissions and how to prepare for applying to medical school.

"In the medical writing course, you will learn how to get a personal statement together," Mr. Franklin told SEEP students during their June 10 orientation. "This is one of the most important parts of your application. The one I wrote in the program is the one I used when I applied to medical school, and here I am today. Use the skills you get here for your own success."

MCG faculty provided science courses and clinical shadowing experiences. SEEP participants' mentors helped them prepare for quizzes and exams.

Mr. Franklin said it was during a clinical rotation in his own SEEP experience that he decided to pursue obstetrics and gynecology. "I saw three C-sections and a vaginal delivery, and it was an amazing experience," he said. "The emotional excitement between parents and the energy of the delivery room planted the seed for me. I saw all that energy and I wanted to be a part of it."

Mr. Franklin, 30, served as a dental assistant in the Army for six years before applying to medical school. "I'm glad I got here through this route," he said. "I think medical school would be a lot more challenging if I was younger. Coming out of high school, I wasn't ready for any more school. The motivation wouldn't have been there. I got a lot of discipline from the Army."

Wilma Sykes-Brown, associate administrative director of educational enrichment programs, said students like Mr. Franklin are wonderful motivators for SEEP participants. Since 1970, SEEP and similar programs have produced dozens of MCG students.

"These programs have a tremendous impact on our state and tomorrow's workforce," said Ms. Sykes-Brown. "Over 70 percent of our previous participants have enrolled in a health professions school or are employed in a health science field. Between 1979 and 2004, approximately 20 percent of college participants enrolled in various programs at MCG. By producing practitioners for Georgia, this program is one important way to address the health disparities problem in our state."

–Ellen Gladden

Chris Franklin served as a SEEP mentor during the summer.

"These programs have a tremendous impact on our state and tomorrow's workforce. Over 70 percent of our previous participants have enrolled in a health professions school or are employed in a health science field. Between 1979 and 2004, approximately 20 percent of college participants enrolled in various programs at MCG."

–Wilma Sykes-Brown

CLASS NOTES

Dr. Herbert S. Greenwald Jr. *('66), Macon, Ga.*, retired from his ophthalmology practice Dec. 31, 2003.

Dr. Inman "Buddy" English *('69), Warner Robins, Ga.*, has been appointed an at-large representative of the Georgia Board of Community Health by Gov. Sonny Perdue. Dr. English is a member of the American Academy of Pediatrics. An avid gardener, he also is a member of the Georgia Master Gardeners Association, the Native Plant Society of Georgia and the American Camellia Society.

Dr. Paul E. Stanton Jr. *('69)*, president of East Tennessee State University since 1997, is serving his second term as vice chair of the Southern Regional Education Board. He was appointed to the board by former Tennessee Gov. Don Sundquist in 1997 and served his first term as vice chair in 2002-03. The board, the nation's first interstate compact for education, is headquartered in Atlanta. It has 16 member states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

Dr. Arthur C. Fleischer *('77)*, an ultrasound radiologist at Vanderbilt University Medical Center, has published two new books: *Sonography in Gynecology and Obstetrics: Just the Facts* (McGraw-Hill Professional, 2003) and *Appleton & Lange Review for the Ultrasonography Examination* (McGraw-Hill/Appleton & Lange, 2004, co-authored by Carol A. Krebs and Charles S. Odwin).

Dr. Carlton T. Faulk *('89)* is an Atlanta dermatologist. He and wife Christy were featured on Turner South's 3 Day Weekend Oct. 28. The show will rerun nine times.

Dr. Matthew W. Camp *('94)* is an accomplished chef and eye surgeon, married to Paige Camp ('94), a dermatologist in the Georgia cities of Marietta and Canton. Matt Camp will be guest chef at Henderson Village, a four-star country resort in Perry, Ga., this fall teaching a cooking class on tailgating recipes and is developing a cookbook on the same topic. He's still a Bulldog fan, never missing a game.

Dr. Leslie Coats Stevens *('95)*, internal medicine specialist, has joined LifePath Hospice and Palliative Care as an associate medical director in Polk County, Florida.

Dr. Robert Burnaugh *('96)*, a pulmonologist and critical care specialist certified by the American Board of Internal Medicine and American Board of Pulmonary Disease, recently joined the medical staff of Hilton Head Regional Medical Center in Hilton Head, S.C.

Dr. Kristen Nelson Innes *(2000)* has joined the medical staff of Hilton Head Regional Medical Center in Hilton Head, S.C. She is an obstetrician/gynecologist who completed an internship and residency at Baylor University Medical Center in Dallas, where she was chief resident, receiving the William K. Strother Award for academic achievement.

Welcome, Freshmen

The Alumni Association of the School of Medicine sponsored its annual Freshman Brunch Aug. 6 to welcome new students to the school. Attendees included Aida Mahmutovic, Trip Cook and Srikanta Banerjee (from left) and Sarah Sziam, Jennifer Givoeffi and Linda Millan (from left). *Photos Provided.*

Obituaries

Dr. W.B. Bates *('45), Waycross, Ga.*, died Aug. 3, 2003.

Dr. Homer E. Breckenridge Jr. *('64), Donalsonville, Ga.*, died May 25 at age 77. Dr. Breckenridge served in the U.S. Army during World War II, then earned a bachelor's degree in chemistry from the University of Georgia before earning his MCG degree. He moved to Donalsonville in 1965 and became co-owner of Donalsonville Hospital. He was the driving force behind obtaining funds to enlarge the hospital and add new services for the tri-state communities it serves. He retired from medical practice in 2001 but continued to serve on the hospital's board of directors. Survivors include wife Becky, his mother, three sons, one daughter and nine grandchildren.

Mark Your Calendar

School of Medicine
Alumni Weekend Retreat
February 25-26, 2005
Hyatt Regency, Savannah, GA

Watch your e-mail for details. For more information, contact Scott Henson at 706-721-4416.

Business Course Serves as National Model

The American Association of Neurological Surgeons has adopted a Medical College of Georgia Medical Business Course.

Health Care Management is an online course to teach MCG residents about health care financing and investing. The nonprofit scientific and educational association will offer the course as continuing medical education credit for its 6,600-plus membership worldwide.

"We're really looking forward to this opportunity," said Joni Shulman, associate executive director for education at the AANS. "This is fabulous for our members because we're trying to provide more opportunities for our physicians to obtain continuing medical education. The course is extremely well-done and this will be one of our first online continuing medical education offerings."

AANS members can access the MCG course at www.aans.org. The American Board of Neurological Surgeons, the certification agency for the neurosurgery profession, recently named AANS the regulatory agency for tracking neurosurgeons' continuing medical education credits.

The course architect is Bill Hamilton, administrative director for the MCG Neuroscience Center. The training methodology has already received national recognition.

Dr. Jonathan Tuttle, a first-year neurosurgery resident, and Mr. Hamilton submitted a paper to the Congress of Neurological Surgery describing the course and the efficacy of the online training method. Dr. Tuttle received a CNS Resident Award for the paper and will present the paper at the society's annual meeting this fall in San Francisco.

"The course really is a preparation for a resident's birth into life after residency training," said Mr. Hamilton. "They'll have to know human resources policies, how to pay taxes, how hospital finances work, details of regulatory issues and political lobbying practices."

The seven-lecture series Mr. Hamilton developed received such favorable comments from neurology residents and faculty that he sought to expand the program for all MCG residency programs and beyond. "We found that all residency programs brought in business professionals once or twice a year for a basic business seminar, but why couldn't we set up a nationwide continuing education class for doctors?" said Mr. Hamilton. "Training in the non-clinical aspects of health care is lacking across the board. Physicians and residents need basic business principles, but when do they have time to attend a course?"

Working with educational design faculty, he developed the Web-based curriculum which includes a pre-test and post-test. Dr. Walter Moore, associate dean for graduate medical education, made the course a non-core requirement for all MCG residents.

–Ellen Gladden

Fellowship Advances Student's Ligament Research

Fatima Cody Stanford, a second-year student in the School of Medicine, has been named a 2004 Bristol-Myers Squibb Academic Medicine Fellow.

One of 32 medical students representing 19 of the nation's top medical schools, Ms. Stanford received $6,000 to assist with a summer research project. Scholarship recipients were selected based on research proposals submitted to National Medical Fellowships Inc., a nonprofit organization founded to improve the health of underserved communities by training and educating minority physicians, educators, researchers and policymakers. Since 1946, the group has awarded over $38 million to 23,000 individuals.

Ms. Stanford, an Atlanta native, completed a summer research project under the guidance of Dr. Karl Wenger, director of research for the MCG Department of Orthopaedic Surgery.

"Fatima's project took what we have learned clinically in the field of adult ligament reconstruction and extended our scientific knowledge to better understand how transplanted ligaments adapt to growing limbs in children," said Dr. Wenger. "We investigated the basic question of whether a grafted ligament will grow normally when subjected to mechanical stress as the child grows."

Ms. Stanford said she was drawn to orthopaedics because of her interest in sports and fitness. "I was a sprinter in high school and I danced with the Georgia Ballet and the Emory University Dance Company," she said. "I feel truly blessed to have been selected as a recipient of this prestigious fellowship. I see this as a stepping stone to a flourishing career in academic medicine."

Next March, Fatima will join other awardees in presenting their research at a symposium hosted by National Medical Fellowships Inc.

–Ellen Gladden

Medical College of Georgia
NursingNEWS
Fall 2004

Alumna Named ETSU Nursing Dean

Dr. Patricia L. Smith, who earned her master's degree from the Medical College of Georgia School of Nursing, has been named dean of the East Tennessee State University College of Nursing.

She served as interim dean for a year before assuming the position permanently.

Dr. Smith replaces Dr. Joellen Edwards, who was dean for nine years before stepping down to pursue full-time research and teaching responsibilities at ETSU.

Dr. Smith has been a registered nurse since 1964 and a nurse educator since 1970, teaching in diploma, associate-degree, baccalaureate and graduate-degree nursing programs. She joined the ETSU faculty in 1990, holds the rank of professor, and served as a department chair and associate dean for academic programs in the college before becoming interim dean.

As ETSU's associate dean of nursing, Dr. Smith led the development of the doctor of science in nursing degree program, a more streamlined 120-credit hour B.S.N. degree program, an accelerated second-degree B.S.N. track and the new Regents Online Master of Science in Nursing degree program.

She also oversaw development of the master of science in nursing degree program from its inception in 1991, as the program grew from a family nurse practitioner program to offering adult, gerontological and psychiatric/mental health nurse practitioner, as well as nursing administration options.

In addition to curriculum development, she authored or co-authored grants and contracts resulting in over $4 million in funding for the College of Nursing.

Dr. Smith earned her bachelor's degree in nursing from Northwestern State University and a doctorate in education from the University of Tennessee.

13 Named to Nurse Scholars Program

Thirteen Medical College of Georgia students have been named to the Nurse Scholars Program, a means of addressing the nursing shortage while rewarding academic excellence and dedication to health care.

The recipients are:

Tracy Alagna	Clint Holton	Katie Schneider
Louisa Dasher	Lisa Jones	Melody Stocker
Jonathan Griggs	Misty Dawn Lampp	Karrie Walker
Elizabeth Hansford	Julie Neal	Amy Williams
Geoffrey Hlaing		

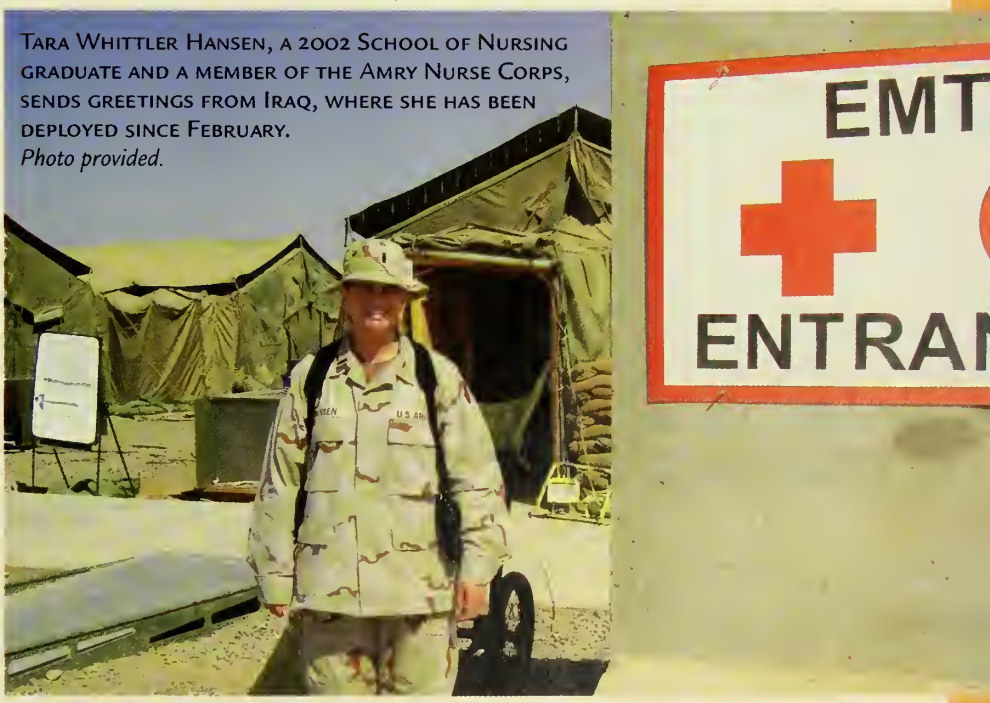
MCG, MCG Health, Inc., and University Health Care System partnered in May 2003 to support the program, offering $10,000 scholarship-loans to selected MCG School of Nursing students. In return, recipients have one year of their scholarship-loans forgiven for each year they are employed by the supporting health system.

All rising juniors with at least a 3.5 grade point average are invited to apply. A committee representing the sponsoring health systems and the MCG School of Nursing chooses recipients based on academic achievement, interviews and essays pertaining to the nation's current nursing shortage.

"We select outstanding students who are committed to the nursing profession and committed to practicing in the Augusta area after graduation," said Dr. Melissa Frank-Alston, assistant dean for student affairs in the School of Nursing.

"The nurse scholars are very enthusiastic about their careers. They are aware of the nursing shortage and want to rise to the challenge. They're passionate about their profession."

Greetings from Iraq



Tara Whittler Hansen, a 2002 School of Nursing graduate and a member of the AMRY Nurse Corps, sends greetings from Iraq, where she has been deployed since February. *Photo provided.*

Mother/Daughter Alumnae Create Legacy of Service

Their classmates called them Mama Byrd and Baby Byrd.

Baby Byrd has long since flown the coop, but she looks back fondly on the days that she and her mother were students together in the Medical College of Georgia School of Nursing. "It was fun going to school with my mother," says Sandra Peterson, whose hard work led to her current position as executive director of Oak Forest Ambulatory Health Center, a group of hospital-based specialty clinics managed by Chicago's Cook County Bureau of Health Services.

Both Ms. Peterson and her mother, 88-year-old Dorothy Byrd, already had nursing diplomas when they decided that a bachelor's degree was the next step.

"I was in the Air Force for two years, then worked for a clinical nurse specialist who had amazing persuasive power in affecting and enhancing nursing," Ms. Peterson says. "I said, 'That's what I want to do. It's time now and I really want to do this.'" It was music to her mother's ears.

"I told her if she'd do it, I'd do it," says Ms. Byrd, whose diploma had already garnered her years of experience in Augusta hospitals, including Talmadge Memorial Hospital (now MCG Medical Center). She was ready to broaden her knowledge base and her potential for career advancement.

When Ms. Byrd heard about an MCG program offering a fast-track bachelor's degree for registered nurses, she knew the time was right. "I was living in New York when my mother called and told me about the program," said Ms. Peterson. "I had just enrolled in a different program, but I found out it would take me 18 months less to complete a bachelor's degree at MCG. Off went the furniture into storage."

She moved back to Augusta in 1973, then spent the next nine months earning a bachelor's degree with her mother.

"The philosophy at that time was self-directed learning, and my mother and I were both extremely motivated," said Ms. Peterson. "We studied together and had a good time."

Ms. Byrd recalls with a laugh that there only one downside: "Sandra was slow, so she always kept me waiting before we could head out for the day," she says. "I had to run to class every morning."

Ms. Byrd took the inconvenience in stride. After all, she had been sacrificing for her children all her life. She and her husband, a Pullman railroad porter, raised two daughters, the oldest of whom contracted polio as a child. "She wore leg braces for a long time, then a total body brace for a good while after that," Ms. Byrd says. "The disease affected her arm, but she could ride a bike, play piano, anything any normal child could do. She was very, very bright."

When that daughter died of an aneurysm in middle age, Ms. Byrd and her younger daughter, Sandra, became closer than ever. After earning their MCG degrees together, their careers really blossomed. Ms. Byrd continued her hospital work, but this time in supervisory positions. Her standards were exceedingly high. "It got on my nerves when nurses didn't do things as well as I did," she concedes.

Ms. Peterson is equally a perfectionist. She bolstered her credentials with a master's degree in nursing and today oversees three clinics that feed into a specialty-based hospital for Cook County's most vulnerable citizens. "We're the last resort, the safety net for the patient who has no other recourse," she says. "They literally come to our doorstep, and if we weren't there, they would have no place to go."

Her only frustration is that she can't do more for her patients. "When I look at our national's social policy and see its effects on a day-to-day basis, I think it's just not a good enough system," she says. "People shouldn't be dividing their medications to make them last. That's totally unacceptable in a country with the vast richness that we have."

The problem is exacerbated, she notes, when the economy falters. "Access to health care is deteriorating because so many people have lost their jobs. As the jobs go, so does the health care coverage. We really see the effects of that."

She coordinates health fairs and school vaccination programs, among other community efforts, to try to extend her staff's influence as far as possible. Her clinic system participates

Dorothy Byrd (left) and Sandra Peterson during MCG's 2004 Homecoming celebration.

in a chronic-care model that ensures ongoing treatment and education for asthma, diabetes, breast and cervical cancer and domestic violence.

Her plans just keep growing as the needs present themselves. She is also proud to note that throughout her career, she raised a wonderful son. James, 21, is a college student majoring in academic computing and business management.

Ms. Byrd, who retired in 1982 and became a widow after 60 years of marriage in 1999, is proud that the family legacy of caring for others is in such good hands. "I miss taking care of people," she says, "but I feel like we've accomplished a lot."

Her daughter agrees. "I very definitely would do it all over again," says Ms. Peterson. "I don't recall ever wanting to do anything differently."

–Christine Hurley Deriso

Nursing Instructor Stresses Empathy

Robert Cannon places a high priority on empathy.

"I try to impress upon my students that even if they want to work in the emergency room, intensive care unit, critical care unit, etc., they are all 'psych' nurses," said Mr. Cannon, an instructor at the Medical College of Georgia School of Nursing in Athens and a licensed clinical nurse specialist in psychiatric/mental health nursing. "Our patients and families need counseling, reassurance and support. They are often frightened and depressed. All nurses need to be able to deal with the emotional needs of the patients and families."

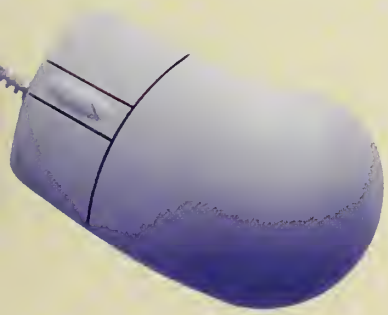
Mr. Cannon, whose physician father provided early exposure to the world of medicine, worked at a local hospital in Galesburg, Ill., during summer breaks from college. A summer job as a scrub nurse in surgery quickly morphed into a desire to be a nurse anesthetist.

"I became interested in anesthesia and entered the University of Illinois School of Nursing to become a nurse anesthetist," said Mr. Cannon. "As often happens, I became sidetracked, worked in many different areas of nursing and ended up with an interest in treating chemical dependency and impaired health care professionals."

Few students seek out the nursing profession to become psychiatric nurses, he noted, but they will undoubtedly encounter psychiatric patients in every area of health care and in the general public.

"Chemical dependence and mental health treatment facilities are closing every day," he said. "The patients are ending up in emergency rooms, being treated in home health settings and going to general hospital beds. This is one more reason the students need to pay close attention to this area of nursing."

Faculty Member Certified in Online Instruction



Pamela Cook, assistant professor of undergraduate studies in the Medical College of Georgia School of Nursing, has received Certified Online Instructor designation from the Learning Resources Network, a 5,000-member international education association.

The certification program provides professional development and recognition for instructors of online courses. Certification designation was developed by a committee of online faculty from universities and colleges in four countries.

Ms. Cook's certification involved a critique of her online courses, a knowledge exam, evaluation by online students participating in her courses and completion of three online courses for teaching online, designing online instruction and building learning communities in cyberspace.

"With millions of students now taking online courses, this course of study provides needed professional development for faculty in this emerging area of practice," said Dr. Mary Dereshiwsky, chair of the certification committee. "In addition, it recognizes the work and expertise of professors successfully teaching online."

School Receives Tull Foundation Grant

The Atlanta-based Tull Charitable Foundation has provided a $75,000 grant toward the E. Louise Grant Chair in the Medical College of Georgia School of Nursing.

The chair was established and partially funded through a gift in the will of Ms. Grant, founding dean of the MCG School of Nursing. This gift brings the funding level to $345,000; the chair will be fully endowed at $500,000. The funding will supplement the salary of a world-class faculty member, bolstering MCG's tripartite mission of education, research and clinical care.

E. Louise Grant

"We greatly appreciate the generosity of the Tull Foundation," said MCG School of Nursing Dean Lucy Marion. "Now more than ever, private philanthropy makes a critical difference in helping the MCG School of Nursing achieve its vision of becoming a premier nursing school."

Such generosity is particularly important amid an urgent need to attract bright young minds to the nursing profession and to optimize their education, she said.

"There is a nationwide shortage of nursing professionals," said MCG President Daniel W. Rahn. "The MCG School of Nursing is the largest school of nursing in the state of Georgia. It is extremely important that we assure its academic future. Endowed chairs help us recruit and retain the highest-caliber academic nurses and go a long way toward assuring that future."

Alumna Receives Palmetto Gold Award

Dr. Trudy Groves, a Medical College of Georgia alumna and head of the University of South Carolina-Aiken School of Nursing, has received a 2004 Palmetto Gold Award.

The award is part of the Palmetto Gold Program, established by the S.C. Department of Education to honor many aspects of educational achievement. Dr. Groves' award, presented at the Palmetto Gold Gala April 23 in Columbia, S.C., honors nurses' contributions to patient care and nursing education in South Carolina.

Dr. Groves earned a bachelor's degree from the MCG School of Nursing in 1968 and a master's degree in nursing from MCG in 1972.

"I feel very honored to have been selected as one of the nurses in South Carolina to receive this award," said Dr. Groves. "I am especially honored that the faculty of the School of Nursing nominated me to receive the award. Their friendship and support have been the most rewarding part of serving as head of the school for the past 18 years."

Dr. Groves joined the USC Aiken faculty in 1972.

Program Shapes New Nursing Role

The American Association of Colleges of Nursing has selected the Medical College of Georgia School of Nursing, MCG Health System and University Health Care System to implement an education and practice model for the new role of clinical nurse leader.

The role was created to oversee patient care within clinical units, implementing evidence-based and cost-effective treatment.

MCG will develop a master's-degree program in the field with MCG Health System and University Health Care System implementing and evaluating a model for patient care delivery that factors in the role. The pilot program will be implemented within a year. The curriculum will target students with a non-nursing baccalaureate degree and will serve as the foundation for a proposed clinical doctoral degree.

Brandice M. Abrams *('02)*, Decatur, Ga., is working as a staff/charge nurse at DeKalb Medical Center in a 51-bed medical/surgical unit. She has worked there since graduation.

Obituaries

Irene Kinard *(B.S.N., '79)* died June 6 at age 85. She was a retired administrative supervisor in MCG's Central Supply, where she worked for 26 years. She served with the U.S. Army's 1st Nurse Corps in the South Pacific from 1945-47 and as supervisor of the University Hospital Emergency Room in Augusta from 1948-50.

Waiting for the Smoke to Clear

By Bruce Morgan

Editor's note: Bruce Morgan, a consultant and faculty member for Joint Commission Resources, retired in 2000 as MCG's public safety director.

Sept. 12, 2001

It's 3 a.m. I've just collapsed on a bunk bed in Jacobi Medical Center's nursing dormitory in the Bronx, and for the first time I'm reflecting over the day. I talked to my wife, Camille, and son Robbie earlier, but I want—no, I really need—to talk to them again. I resist the urge to wake them up. They'll be up in just a few hours.

It is hot and stuffy in the old dorm, and with the windows open, I can hear 49th Precinct police cars, fire engines and ambulances speeding out of the station with their sirens and squealing tires. How can people dare commit crimes, get injured, die or have babies?

I've just finished helping assess available morgue space. Looking at the bodies brought to the morgue Sept. 10, I can't help thinking they're the lucky ones in a strange sort of way.

The adrenaline has faded and the caffeine is gone. I'm alone. The tears roll from the corner of my eyes for the first time. How many of my New York friends and acquaintances have I lost? How many bodies will we see tomorrow? I pray I will not look down and recognize anyone. I take comfort in the fact the death mask rarely yields a

person's identity to casual acquaintances—only to family.

I do not want the sun to rise on a new day. I want to turn back time to Sept. 10.

Sept. 10, 2001

I'm waiting to fly to Albert Einstein College of Medicine's Jacobi Medical Center for a meeting with the facility management and support staff. I've worked with New York City hospitals on security and emergency operations since the early 1990s, and my task is to help Jacobi prepare for an upcoming Joint Commission on Accreditation of Healthcare Organizations survey.

But it looks like this trip might not work out after all. At the airport, I look at the flight board and note cancellations caused by thunderstorms. My flight isn't canceled but delayed. I consider going home and trying again later in the week, but Delta suddenly announces we're boarding. I arrive late and check into my hotel to get some sleep.

Sept. 11, 2001

I arrive at Jacobi for my meeting. What a beautiful fall day, not a cloud in the sky.... It's almost 8 a.m.

I've cultivated a close relationship with the Jacobi staff over the years. They call me their pet Southerner. We share "Italian hugs" every time I arrive. It's a New York tradition.

After full rounds of hugs and coffee, we file into the conference room to start our meeting. At 8:50 a.m., there's a knock on the door and we're told that a plane has flown into the World Trade Center. We turn on the television and watch in amazement at the events unfolding just miles from where we sit. Our eyes are focused on Tower 1 when a plane slams into Tower 2. The anchor shouts, "Oh my God, is this live?" It takes a few seconds to absorb what we've just witnessed, but there's no time for reflection. We go into Emergency Operations.

In the room where identification pictures are taken (usually for new employees, but now for emergency hospital identification as well), a young woman cries softly, telling the camera operator that she works in the World Trade Center and is here because of Orientation Training for her new job—starting next week.

It seems like Armageddon. The sky becomes a focus; every time I hear what turns out to be military aircraft, I hold my breath. False reports abound, including news that New York's University Hospital has been bombed. The hospital phones are out and cable television isn't working, so reliable information is sparse. Ironically, our contact with the outside world comes from Camille, glued to CNN back in Augusta and talking to me on the cell phone.

We report to the hospital's trauma center, where the chief of the hospital police assigns me to the lobby of the main building. I run to the lobby, put on a badge and, along with fellow police officers, clear everyone without identification. I take over the checkpoint to the hospital elevators.

Back in the lobby, a priest tells us Tower 1 has collapsed. No word on casualties; we're still waiting.

I don't know how they're getting here, but average New Yorkers are showing up offering food, blood, anything they can do to help. With stress accentuating my Southern accent, people look at me like I'm green and have antennas when I open my mouth to speak.

There are tense moments. Jacobi stands tall against the Bronx skyline, and some family members rush to the lobby, pleading to take their hospitalized loved ones home before a plane hits the building. With help from clergy, we convince them that the hospital is the safest place to be.

4 p.m.: I report to the hospital's Command Central for an update on the ever-changing information and assignments. As we enter, we exchange long hugs, some tears, nervous smiles. The silence is deafening. We learn of the devastation at Ground Zero and are told, chillingly, that very few casualties are being triaged out of Manhattan. The words land heavily. Jacobi remains in Emergency Operations.

The morgue begins filling with felled firefighters and police officers. We are assigned to help with security and protect the privacy of victims coming to the morgue. Twenty-two trained identification officers report to start the grim task. The commander gets a call and makes an announcement: Most of the remains are unidentifiable, so the identification officers are being reassigned. The commander's face is angry—very angry.

As the sun sets, several officers and I make security rounds throughout the hospital, including a roof area where we get our first look at Ground Zero. We stand speechless as clouds hover over the site. We can barely smell the smoke ... just a slight burning odor.

Or have we just gotten used to it?

Medical College of Georgia Today welcomes submissions to the Reflections column of the magazine. Typed essays (approx. 750 words long) reflecting a professional or personal experience of a member of the MCG community should be submitted to:
Christine Hurley Deriso, Editor
Medical College of Georgia, FI-1040
Augusta, GA 30912
(706) 721-2124 (phone)
(706) 721-6397 (fax)
cderiso@mcg.edu (e-mail)

MEDICAL COLLEGE OF GEORGIA

TODAY

Volume 32, Number 2
Fall 2004

White Coat Ceremonies

The Schools of Dentistry (left) and Medicine each held their annual White Coat Ceremonies recently to initiate students into the clinical component of their education.

Medical College of Georgia
Division of External Affairs
Augusta, Georgia 30912

CHANGE SERVICE REQUESTED

Non-Profit
Organization
U.S. Postage
PAID
Charlotte, NC
Permit No. 3307